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THE

YOUNG

ARTIST'S ASSISTANT,

OR

Elements

OF

THE FINE ARTS:

CONTAINING

THE PRINCIPLES

OF

DRAWING,
PAINTING IN GENERAL,
CRAYON PAINTING,
OIL PAINTING,
PORTRAIT PAINTING,
MINIATURE PAINTING,
DESIGNING,
COLOURING,
ENGRAVING,
&c. &c.

By WILLIAM ENFIELD, LL.D.

Author of the New Pronouncing Dictionary of the English Language, Elements of Natural Theology, Scientific Amusements, &c. &c.

FIFTH EDITION,

WITH ENGRAVINGS.

London:

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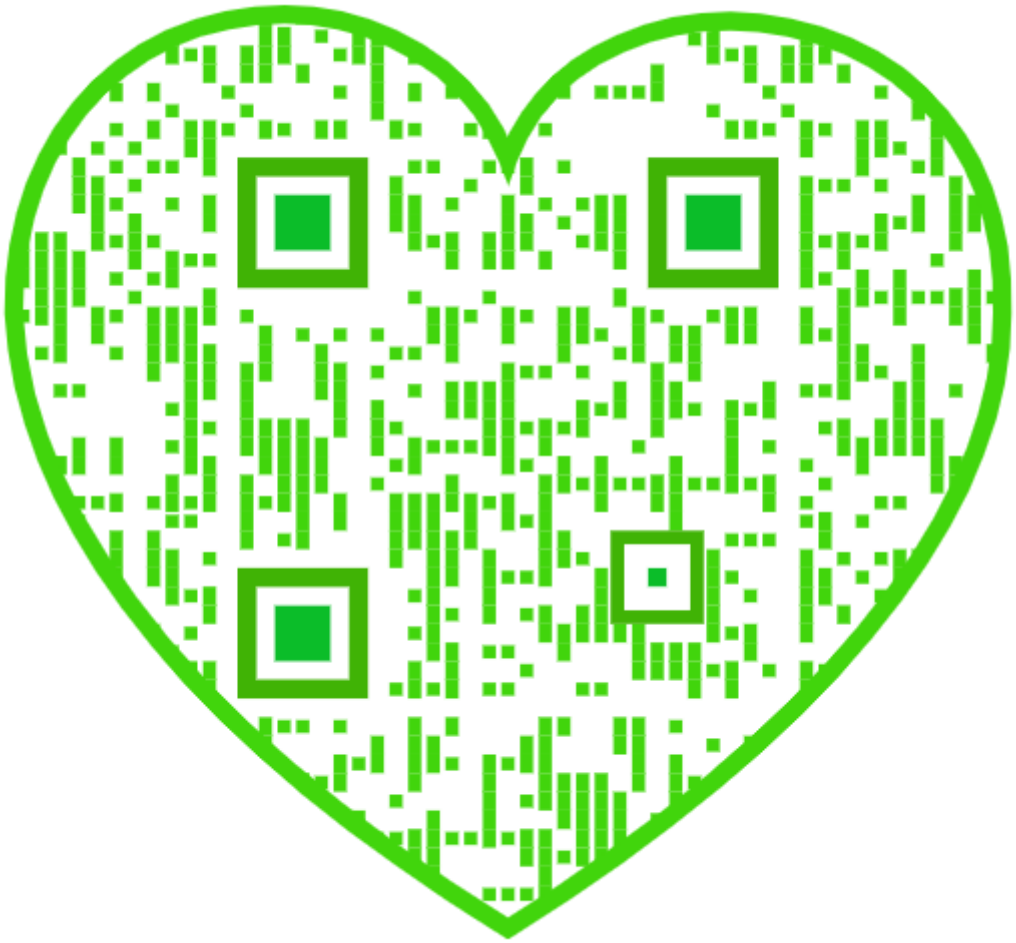

Fig V.

Fig VI.

Fig VII.

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Fig II.

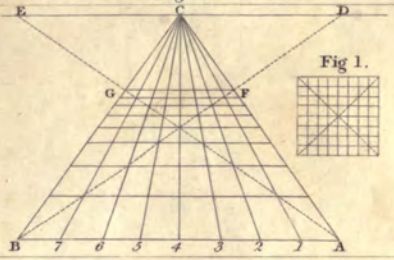

Fig 1.

Fig. III.

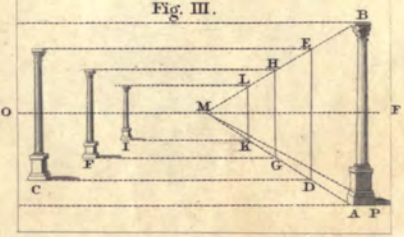

Fig IV.

THE

YOUNG ARTIST'S ASSISTANT.

DRAWING.

DRAWING forms so elegant and agreeable an amusement for leisure hours, and has so wide a range of general utility, it cannot fail to be attractive to a polished mind. It is equally adapted to both sexes and to all ages; and whether it be employed in embodying the forms of fancy, or delineating the beauties of nature, and the inventions of art, it never fails to be a source of amusement. It is the basis of Painting, Designing, Sculpture, Architecture, Engraving, Modelling, Carving, and most of those arts that are the offspring of fancy and that embellish civilized life.

To enable those who may not have the assistance of a skilful instructor, to become masters of this desirable accomplishment, we shall give plain and concise directions, and point out such a mode of study as we trust will render the task of acquiring it pleasant, and remove many impediments, which, without such assistance, would retard their improvement.

In the formation of a painter, genius is the first and most indispensible requisite, for the deficiency of which

no human acquirements can compensate. A picture, like a poem, would afford little pleasure, though formed according to the strictest rules of art, and finished with the most indefatigable attention, were genius wanting to complete the design—a design which may be said to be like the celebrated statue fashioned by Prometheus, lovely, but lifeless, unless genius, like the fire which he is fabled to have stolen from heaven, darts its invigorating ray, and gives a soul to the finished piece.

But though genius is absolutely necessary, since nothing excellent can be done without it, yet it will not alone suffice. Like a rich but uncultivated soil, it would be fruitful only in weeds, were not its exuberances corrected by the rules of art, by reflection, and a strict attention to nature, which as the grand object of a painter's meditations, ought never to be out of his sight; it is the only source of beauty, since nothing can be pleasing that is not natural.

An intimate knowledge of the works of the ancients will be of the greatest advantage; they made nature their peculiar study, and transmitted to us examples which have ever been considered as forming a perfect rule of beauty.

A close and servile imitation, however, is not what we would wish to recommend; a man may find his account in attending to the manner, and storing up the observations of a well-bred and intelligent acquaintance, without ridiculously affecting his gait, or copying his phraseology.

To proceed regularly and methodically, we shall first direct the learner's attention to the

Implements and Materials used in Drawing

DRAWING-BOARDS are for fixing the paper upon, so that it may not shift, and also for straining it, to prevent the colours, when laid wet upon the paper, from causing it to swell up, so as to be uneven. The simplest sort is made of a deal-board, framed square, with a strong piece across each end, to prevent warping. Upon this the paper may be fixed down with pins, wafers, or sealing wax, or it may be strained with paste or glue, as follows: having wetted the paper well with a sponge, lay it upon the board, and turning up the edges about half an inch, run a little good paste or glue all round on the under side, and press the paper down upon the board with a cloth; then set it by to dry: the paper, which had expanded and blistered much when wet, will contract in drying, while the edges, being fixed immoveably, will strain quite flat and tight, and will be much better for drawing upon than when loose.

The best kind of drawing-boards, however, are made with a frame and a moveable pannel, upon which the paper is simply put wet, and then forced into the frame, where it is confined by wedges at the back. This strains equally well, without the trouble of pasting, so that you may dry it at the fire; and it also looks much neater. These drawing-boards may be bought at most colour shops. It is necessary to mention, that all the angles of drawing-boards should be exactly square.

Parallel-rulers are for drawing parallel lines very readily: they are made of two pieces of ebony fasten-

ed together by brass bars, so as always to move parallel to each other. They may be bought of different kinds and prices, at the mathematical instrument makers.

Tee-squares are rulers made in the form of the letter T, which are used with the drawing-boards, the short end, called the stock, being applied to the edge of the board, so as to slide forwards and backwards; while the long part, called the blade, is used for drawing lines by. These are more convenient than parallel rulers, when a drawing-board is used, as by them you draw lines at right angles to each other at once, without using the compasses.

Dividing-compasses are instruments of brass and steel, for dividing lines, and laying down measures from scales, &c.: they are generally sold in cases, containing also a steel pen, for drawing lines clearer than can be done by a common pen, which is very useful where neatness is required; and points with a black-lead pencil, for putting into the compasses, when circles are to be described. These cases also contain scales of equal parts, such as are used in geometry, and protractors for laying down angles. All these may be had at the instrument-makers.

Black-lead pencils are made of a mineral substance called plumbago, or black-lead, which is a carburet of iron, sawed into slips, and fitted into sticks of cedar. They are of various qualities. The best are fine, without any grit, not too soft, and that cut easily without breaking. An inferior kind, made by mixing up the dust of black lead with gum or glue, and forming a composition, which is fitted into sticks in the same

manner as the best: these are always gritty, and do not answer so well for most drawings, yet, being cheaper, they may be used upon many occasions. It is necessary to examine pencils before any quantity is bought, by cutting one of them, because the composition pencils, having the same outward appearance, are often sold for the best.

Indian-rubber, or elastic gum, as it is also called, is a substance very much like leather, which has the curious and useful property of erasing or defacing lines drawn with black-lead; it is therefore much used for this purpose. It is brought chiefly from South America, in the form of small bottles, which are cut up into slips. It is originally the juice of a tree that grows abundantly in Surinam, and is like milk when exuded from the tree, but soon becomes solid when exposed to the air. The natives form balls of clay which they smear over with this milk; when this coating is almost dry, they apply another, and so on, till it is of the required thickness; they then moisten the clay with water, which does not dissolve the Indian-rubber, and wash it out. These bottles are used by the natives for containing water, or other liquors. It is a production common to the East Indies also, from whence it is imported in various forms, more convenient for use than the bottles above-mentioned.

Indian-ink. This very useful substance comes from China, where it is used for common writing, which is there performed with a brush, instead of a pen. It is a solid substance, of a brownish black colour; and the composition is not known, but is conjectured to be the gall of a species of cuttle-fish. When ground up with

water upon a clean tile or earthen-ware plate, it may be made either lighter or darker, as required, by adding to it more or less water. The best Indian-ink is always stamped with Chinese characters, breaks with a glossy fracture, and feels smooth, and not gritty, when rubbed against the teeth. An inferior kind is made in this country; but it may be easily known by its grittiness. This is made of lamp-black or ivory-black, ground up with gum.

Hair-pencils are made of camel's hair, put into a goose or swan's quill. To choose these, moisten them a little, and if they come to a point, without splitting, they are good; if they do not, they are not fit for drawing with. The brushes used by the Chinese, made of a white hair fitted up in reeds, are very excellent for drawing; being much superior for landscapes and many other purposes, to ours made of camel's hair, as they are more elastic. They are not sold here in common, but they may sometimes be met with.

Charcoal is used for slightly sketching in the outlines of figures, in order to get the proportions, previous to making a drawing in chalk. The best charcoal for this purpose is that of the willow: it is cut into slips, and the strokes made with it may easily be rubbed out with a feather of goose's or duck's wing.

Black-chalk is a fossil substance, resembling slaty coal, which is cut into slips for drawing. It is generally used in an instrument called a port-crayon, which is made of steel or brass. It is much employed for drawing figures, and is the best substance for this purpose, in making drawings from plaister, or after the life. It is more gritty than black-lead, but is of a deeper black, and has not the glossiness of the for-

mer. It is of two kinds, French and Italian; the former is soft, the latter hard.

For mellowing and softening the shadows into each other when black chalk is used.

Stumps are necessary. They are pieces of soft shamoy leather, or blue paper, rolled up quite tight, and cut to a point.

White-chalk is used together with black, for laying on the lights. This is different from common chalk, being much harder. Tobacco-pipe clay will do very well instead of it.

Red-chalk is a fossil substance of a red ochery colour which is sometimes used for drawing, but not so much now as it formerly was, the black being preferred; however, the red being cheaper, will do very well for some purposes.

Drawing-paper. Any paper that will do for writing will do for drawing; but as the wire marks in common writing paper are injurious, paper made without any wire marks, called wove paper, is generally used for this purpose. It is made of various sizes and thickness.

Middle tint-paper, is paper of a brownish or of a grey colour, which is used for drawing upon with black and white chalk. Being of a dark colour, the strokes of the white chalk are distinctly seen; and it saves a great deal of time in making drawings, as the tint of the paper answers for the half shadow, so that all that is necessary to be done, is to lay in the dark shadows and the lights.

GENERAL INSTRUCTIONS.

THUS furnished with materials and implements, the student must confine himself to the copying of single subjects, and by no means attempt groups of objects, as the eye, more rapid than thought, will wander over them and confound his ideas, not yet taught the faculty of discrimination; to attain this faculty, it is absolutely necessary to advance pregressively, commencing with the geomatrical figures of arches, circles, ovals, cones, cylinders, and squares, which except the latter, have an evident resemblance to many of the forms of nature, and accurately attain the shading which produces the rotundity, convexity, angles, and most remote parts from the eye. Grapes detached from, or adhering in clusters to the stalk, and many other fruits with their leaves, furnish excellent hints for the acquiring of graceful turns, and the art of placing justly, strong, direct, and reflected lights.—Those require no rules or directions whatever, even in the colouring, as the tints may be composed from the originals. Trees should also be drawn singly, carefully observing the nature of the bark, the characteristics of the trunk, the particular ramifications of the branches, the form of the leaves, and their appearance in the aggregate, so that an observer shall, upon the first inspection of the drawing, pronounce whether it is an oak, an elm, an ash, or a poplar.

Animals may be the next object of the learner's attention, a knowledge of the forms of which will be best obtained by examining the most approved drawings and prints, copying them and comparing them

with living subjects, carefully avoiding in future such errors as may de discovered; he then may proceed to the human figure, commencing his labours with drawing the eye,mouth,nose, feet hands, &c. separately, till he is perfect, when the whole figure may be attempted. The copying of inanimate substances requires but few directions, as they lay fixed, and may be placed in any position; but is far otherwise in drawing from animals or man, for which reason an accurate knowledge of the true shape of the bones, the disposition of the muscles, and the exact relative proportions of the different parts of the body must absolutely be acquired; nor is this all that is necessary, motion continually varying the appearances of the muscles, the student must learn from living subjects every swell or depression in them which is not the consequence of unnatural distortion; as there are certain limits to their motion, he should be capable of ascertaining those limits correctly from remembrance. It having pleased the Divinity to grant the human race the most graceful variety of curved forms throughout the exterior of their frames, and each being subject to sudden and unexpected changes, we may safely assert the artist has a most difficult task in his attempts to delineate them; in order to do so successfully, it would be well for him to imitate the parts already mentioned from good drawings, with black lead or black chalk, on either of the papers before recommended, endeavouring to give a close resemblance of the outlines with charcoal, and then shading with the greatest care, after the original, in parallel lines of greater or less strength, according with the curve to

be expressed; those to be intersected by others forming lozenge intervals; this mechanical part of the art of shading will be better explained by the drawing copied from, than by any directions.

The young artist ought, if practicable, to visit the Royal Academy, where he will see, at a glance, how the light should be disposed to draw with effect; if that is impossible, he must remember to throw one light downward on the object, whether it proceeds from the day or a candle; and that he cannot too strictly attend to the true proportions of the body and limbs, as nothing is more disgusting than to see a man with a head unnaturally large, an enormous mouth, short legs, or too long arms; to prevent his falling into such errors, let him observe, that in a well formed person, his arms extended makes a distance between the extremities of the middle fingers equal to his length; that the face consists of three exact divisions, from the hair on the forehead to the eyes, from the eyes to the bottom of the nose, and from that to the chin. The whole figure is ten faces in length; from the chin to the collar-bone is twice the length of the nose, thence to the lowest part of the breast one face, from that to the navel another, to the groin one, to the upper part of the knee two, the knee is half a face in length, from the lower part of of which to the ancle is two faces, and hence to the sole of the foot is one half. Measuring from the extremes of the breast, the breadth will be found to contain two faces, and the bone of the arm from the shoulder to the elbow, the same number; thence including part of the hand, two faces; and from the

shoulder-blade to the hollow between the collar-bones is one face. The thumb is the length of the nose; from the commencement of the hand to the middle of the arm is five lengths of the nose; and from the pectoral muscle to the same place is four. The great toe is of the length of the nose, and the sole of the foot is the sixth part of the length of the figure; the hands are double their breath in length, and when extended they are exactly the length of the face. The breadth of the limbs vary according to the state of health in the body, and the particular situation of the muscles whenever moved.

The proportions of children are generally thus: three heads in length from the crown of the head to the groin, and thence to the sole of the foot two, one head and a half between the shoulders, one, of the body between the hips and armpits; the breadth of the limbs should be ascertained from a healthy child.

It is perhaps impossible to draw a perfectly beautiful figure from any one person: The most skilful statuaries and painters, sensible of this fact, have composed their finest works from different subjects, as it is very common for the possessor of a truly Grecian head to have a deformed trunk, or another to have graceful limbs and the face of a gorgon. To draw a figure correctly, the intended length should be marked, and all the preceding admeasurements strictly adhered to, beginning the sketch on the left hand, with the head, following with the shoulders, the trunk, the leg most in action, then the other, finishing with the arms, and making the outline perfect before any part is finished; as we may imagine a living or plaster mo-

del placed before the student, that will serve better for improving him than any written instructions, but he will find the greatest difficulty in correctly copying the eyes, mouth, ears, hands and feet, and should consequently be particularly careful when employed on those parts to which rules are utterly inapplicable.

To represent the passions well, every possible attention must be paid to their particular influence on the muscular system, certain determinate attitudes follow each sensation of the soul, and it is the muscles which express their energy; in sleeping or quiescent bodies they are not obtruded on the view, but when their action is excited by some pleasing or horrible cause, they become tense, or relax, and are partially very prominent; the laocoon, and several of the single figures of gladiators, are good studies for the muscles; indeed the modern brethren of the latter, of pugilistic celebrity, might afford many useful hints of manly exertion: it should be recollected, that the most violent emotions of the female sex do not produce the same appearances in their muscles as is observable from similar causes in men; it would therefore be very improper to shew them as prominently; in addition, persons in the lower ranks of life ought to be represented more muscular than the members of the highest orders of the community.

Lest it should be supposed the foregoing rules are rather calculated for a person in some degree acquainted with the art of drawing, than one beginning with the first rudiments, we shall descend to still further minutiæ.

Drawing the Figure.

The study of the human figure has always been considered by artists as the most important part of the art. It is the most difficult, and is by many considered as contributing the most of any to general improvement; though there are some who carry this idea to too great an extent, saying that a person who can draw the human figure well, can draw every thing besides. But this, it is well known, is not the case; there being many artists who can draw the figure well, who cannot draw landscape nor architecture. To draw any thing well, requires a particular study. The study of the figure, however, includes all the finest principles of the art; and when the eye of the student has been accustomed to copy faithfully all the minute circumstances which constitute the character of a figure, and to attend to the innumerable beauties and graceful forms which it presents, he will be better qualified to pursue with advantage every other branch of the fine arts.

In order to acquire a knowledge of the face, begin with drawing the features separate, placing the copy at such a distance as the eye may measure both it and the drawing without moving the head. Sketch in the first outline very light; and, in rubbing it out, leave faint traces of the first sketch. By proceeding in this manner, without the assistance of rule or compass, the outline should be brought to the greatest exactness; and in placing the features, a perfect oval should be formed, through which a perpendicular line is drawn in the middle; and across the centre of this, a diameter line from one side of the oval to the other. On

these all the features of the face are to be drawn, according to the following rules for drawing a head.

The perpendicular must be divided into four equal parts; one from the crown of the head to the top of the forehead; two from the top of the forehead to the eye-brows; three from the eye-brows to the bottom of the nose; four from thence to the bottom of the chin.

The diameter line divide into five parts; the breadth of the face being supposed the length of five eyes; this is to be understood in a full front face only, and these proportions vary in different men, as to length and shape; but in a well proportioned face are nearly right, and should be strictly observed.

When the face turns to either side, then the distances are to be lessened on that side from you, more or less, in proportion to its turning. Most artists begin the drawing with the nose, that being the centre; and then proceed to the other features, observing that the top of the ear is to rise parallel to the eye-brows; the eye to be placed so as to leave exactly the length of one eye betwixt them; the nostrils should not project farther than the corner of the eye; and the middle of the mouth should be on the perpendicular line. In order to understand better the different turnings of the face, it may be very advantageous to procure a piece of wood, made in the shape and size of an egg; draw a line down the middle as before directed: divide this in two equal parts, and draw another across the centre: let the features be made as accurate as possible from the foregoing directions. By turning this oval, a great variety of faces will appear, according as it is inclined or turned; but care must be taken to observe

in what manner the nose projects beyond the surface of the oval. A perfect knowledge of this may enable the student to form an idea of the face better than merely copying prints or pictures without it; but after this acquisition, let the best drawings or pictures be studied that can be procured; previous to which those passions, in manner of Le Brun, may merit imitation.

The positions and actions of the hands and feet are so various, that a knowledge of them can only be acquired by great application and practice: carefully imitating such postures, both in hands and feet, as are found in good prints or drawings. Lines, measures, or such mechanical rules, are not only perplexing, but rejected in the practice of the first masters. The best method is to lightly sketch the whole shape of the hand or foot with its position and action; and examine carefully that it be correct, rubbing out and altering it till it is so; when the bending of the knuckles, the veins, joints, and tendons, may be drawn with much ease, after the shape of the larger parts is made perfect.

The principal difficulty is overcome when a perfect outline is procured; after which the shadows claim the attention of the student. Every appearance of bodies to be presented, animate or inanimate, in distance, shape, substance, and distinction, are perfected by this. Let them be first made broad and massy, without attending to the many little details which fall under a second consideration.

In drawing after a plaister figure, the eye will easily discover the general light and shade——the mass of

light should be kept broad, and be well attended to, before the smaller parts are divided.

The outline should be exceedingly faint in such parts as receive the light. The rising of a muscle may, by its appearance, prove deceiving, and seem darker than it really is; but by casting the eye to the other darker shadows, a true degree of its tint may be ascertained, and sometimes the light may catch on the projection of a bone near the mass of a shadow, which must be touched very tenderly, or it will have a harsh unpleasing effect. This may also be regulated by comparing it with the stronger lights. Observing this rule with care and exactness, is the only true means of preserving the effect of the whole together.

But we have mentioned it as the best mode, in order for the young student to obtain a knowledge of the human figure for him to commence with drawing the features separate. For this purpose he should copy the best drawings he can procure of the *eye*, *mouth*, *nose*, and *ear*, separately, and on a large scale, and of these a front view, profile or side view, oblique view, &c.

The best materials for drawing these, as well as all other parts of the figure, is black-chalk, or black-lead; the former may be used either upon white paper, or upon middle tint-paper; and in that case white chalk may be used for laying on the lights. Black-lead is only used upon white paper. A piece of soft charcoal may be made use of, for first slightly sketching in the general form, which must afterwards be gone over and corrected with black-chalk. The false lines of the black-lead may be removed by the Indian-rubber; but

we recommend to be as sparing as possible of this, as it is more improving to endeavour to draw every thing correct and decided at once, and not trust to the being able to erase the lines which are wrong.

The shadows may be laid on by drawing parallel curve-lines, according to the situation of the part, crossing them occasionally, and softening them in with more delicate lines, where necessary.

All the parts of a human figure are composed of curved surfaces: no straight lines are ever admissable; but every line should have a graceful turn; and it is this circumstance particularly that occasions the study of the figure to give so much freedom in drawing.

Care should be taken, that no lines ever cross each other at right-angles, which gives a disagreeable *net-like* appearance; neither should the crossings be too oblique, as then they are confused: a proper medium will be acquired by the study of good drawings or prints; in general, however, crossing should be avoided as much as possible.

Sometimes the shadows are rubbed in, or their edges are softened with a *stump*, which is a very expeditious way, and produces a fine effect; but it should be used with discretion, as it is better to execute the shadows in a clear and regular manner by soft lines.

Care should be taken not to make the lines harsh and hard, like those of an engraving; they should be softer and more mellow. On this account, *drawings* are much better to learn from than prints, as, by copying the latter, the student is very apt to acquire a dry and hard manner.

But we particularly caution him to avoid copying

with a pen all the lines in engravings used for the shadows, which some, who have not been accustomed to see good drawings, are apt to do.

Many productions of this kind have been executed with an immensity of labour, and have been thought very fine by those who had but little knowledge of the art; yet artists, and those who are good judges, always consider them as very disgusting, and lament to see so much patience and labour misapplied.

In copper-plate engravings, there are no other means of producing shadows but by lines, at least with an equal effect; but this arises from the nature of the process; and in drawing, which is of a different nature, there is not the same necessity for them. In general it should be observed, that the less labour there appears in any drawing, the better it is; and that though every possible pains should be taken to make drawings or paintings excellent, yet this labour should be disguised as much a possible, and the whole should appear as if executed with the greatest ease.

In learning to draw, it is of more importance than is generally supposed, to copy from the finest works only. The most prejudicial quality of a model is mediocrity. The bad strike and disgust; but those that are not good, nor absolutely bad, deceive us by offering a dangerous facility. It is for this reason that engraving contributes to the progress of the arts, when it is employed on subjects that are judiciously chosen; but is too often prejudicial, by the indifferent works it multiplies without number. But let Raphael be copied by skilful engravers, let a young artist profit by his labours, and works without dignity and expression will soon

become intolerable to him; he will perceive to what an elevation the excellence of the art can raise him.

The way to avoid mediocrity, is by the study and imitation of beautiful productions; or, in want of them, of the most finished translations that have been made from them; for so we may call beautiful prints. Let a young draughtsman study the heads of Raphael, and he will not see without disgust the sordid figures of indifferent painters. But if you feed him with insipid substances, he will soon lose the taste necessary to relish great excellencies. In the one case he will advance firmly in his career: in the other he will continually totter, and even not be sensible of his own weakness.

Having copied frequently the parts of a face, he is next to proceed to the entire head; drawing first a front view, then a profile, a three-quarter, and so on; varying in every possible direction, till he is thoroughly acquainted with the appearance of all the principal lines in every situation.

By these exercises he will have acquired some facility in handling his pencil; but before he can proceed to the study of the whole figure with advantage, we would recommend him to the study of the anatomy.

An artist who is acquainted with the form and construction of the several bones which support and govern the human frame, and does not know in what manner the muscles moving those bones are fixed to them, can make nothing of what appears of them through the integuments with which they are covered: and which appearance is, however, the noblest object of the pencil. It is impossible for an artist to copy

faithfully what he sees, unless he thoroughly understand it. Let him employ ever so much time and study in the attempt, it cannot but be attended with many and great mistakes; just as must happen to a man who undertakes to copy something in a language which he does not understand, or to translate into his own what has been written in another on a subject with which he is not acquainted.

But it is not necessary for him to study anatomy as a surgeon, nor to make himself acquainted with all the nerves, veins, &c. It is sufficient to study the skeleton, and the muscles which cover them, and of these, he should most particularly make himself familiar with those muscles which most frequently appear and come into action.

For this purpose, he should procure plaister casts of the anatomy of the human body, and consult treatises written upon the subject; and if he have opportunity, it will be proper afterwards to attend discussions and lectures on anatomy.

Being thus thoroughly prepared, he will be enabled to draw the human figure with great advantage, and he will make a more rapid progress than he could have done without these previous studies.

But after the student has by persevering zeal acquired a facility of drawing the human figure in every possible situation, and under every variety of form and circumstance, much remains for him still to do, before he can be considered an artist. He has yet conquered only the mechanical difficulties; he has yet to make himself acquainted with a great variety of knowledge: historians and poets should be his constant compa-

nions; and he should be familiar with the customs and manners of ancient as well as modern nations.

Drawing of Drapery.

In this particular we are in a great measure compelled to have recourse to the ancients, as however convenient our modern habits may be, they are decidedly ungraceful opposites to the tasteful clothing of antiquity; for this reason every beautiful example from that pure source ought to be studied, carefully distinguishing the light, airy dresses of the heathen deities, and angels of a more recent conception, and their almost transparent folds clinging through motion to their forms, from those intended expressly to cover nakedness, and preserve the person from the ill effects of cold air; observing, besides, the particular shapes of garments, characteristic of the Jewish, Grecian, or Roman nations.

Many statuaries have erred in representing their figures as if clothed in wet linen, in order to shew the contour of the limbs to greater perfection; but this absurdity carries its own condemnation with it. It must be obvious to the most superficial observer, that the texture of drapery should be suited to the inner or outward habit, and its richness, or the reverse, to the situation of the party represented: to determine this point with accuracy, it will be proper to read such works as describe the official and other habits of ancient times, and compare the descriptions with antique statues and paintings; the ornaments and insignia of the rich and powerful may be known by the same means.

In drawing of fine linen, the folds should be made delicate, inclined to angles, and numerous or otherwise, according to the disposition of the habit on the body, where it is confined by a girdle or broach, they are multiplied and in lines, but those should neither be parallel nor disposed like rays: the reflected and transparent lights are particularly pleasing in this material, nor are the shades ever deep and harsh. In cloaths made of wool, care must be taken to shew it fine on the rich, and coarse on the poor; in either case the folds should be large, and by no means numerous, partly cylindrical in their form, sometimes angular, and at others waved, the lights must not be very strong, but the shades deep, and the reflected lights faint, if the colour of the dye is dark. Silks fall into the least graceful folds of any material used in clothing, it will be best, therefore, to draw them from reality, endeavouring to catch the most natural, and copying with great attention the brilliant edges which are their characteristics, and the numerous reflections occasioned by the gloss on the inferior projections. Jewels and ornaments of gold, embroidery, &c. will at times be useful, but there are no rules applicable to the drawing of them. In the general disposition of the drapery, the posture of the figure and of the limbs must uniformly be consulted, they must accord, or there can be no other effect than stiffness in the person represented. Drapery gently agitated by the wind, in running or flying figures, has a good effect when it is made to flow in one direction, and not too much extended; the lights require great care, and should be directed on the most rotund parts, and those must not be crossed

by dark shade, or the limbs or body so treated will appear broken.

Drawing of Landscapes.

The science of perspective is so absolutely necessary in this branch of the art, that it must be acquired before the student attempts to copy a drawing or print; for although the heights of trees, bushes, hills, &c. &c. vary greatly, yet there is a general and palpable declension in the relative proportions as they retire from the eye; besides, if a building intervenes, the want of truth in this particular becomes instantly obvious.

When the student is master of perspective (of which we shall treat in another part of our volume) he may proceed to copy good drawings either with black-lead pencils or chalk, according to the paper he adopts; but he should prefer those only that give a clear and distinct idea of the outline, as he cannot possibly comprehend the forms of objects which are mixed and lost in others, merely to bring the light into a focus for brilliant effect; it would not be amiss at the same time to draw detached objects, till their forms are perfectly and correctly obtained; having accomplished this point groupes will be more easily understood and copied. Shading with the above materials must be governed by the objects drawn from: in using Indian ink, the student should lay on the colour exceeding faint next the light, and deepen the shade gradually; and we would recommend him to confine himself to it till a good judge of his merit pronounces he may attempt colouring; as he should remember his aim is to become a skilful artist by regular progression, and not a mere

gaudy colourist, to entrap vulgar applause. When the student arrives at this most difficult and arduous branch of the art, he cannot too attentively consult the best specimens of colouring within his reach, remarking how the tints of the air in the zenith are generally treated, which is of a purer blue than on the horizon, where the vapours, continually floating near the earth, become more visible, and are tinged with yellow or purple, according to the position of the sun, and their form, when condensed and raised in clouds, which partake of the same tints from the same cause, their transparency in some parts, their dazzling light, reflections, and deep shades, in others. He will perceive that the experienced artist, sensible of the existence of moisture in the air between him and the remotest objects, has shewn very distant hills obscured by blue, or faintly purple vapours, which becoming less dense in nearer objects, are gradually made more perfect, till those in the front of the drawing, exhibit a decided boundary, and clearly defined lights and shades. Contrary to Sir Isaac Newton's opinion, that the rays of the sun contained seven primitive colours, more modern philosophers insist there are but three, blue, red, and yellow; those must therefore serve as the grand basis in colouring, but as nature never glares in fierce tints, they should be tempered according to her dictates, and for the causes mentioned above. No one colour should prevail in a good landscape, neither should they be disposed in the prismatic form, but all parts ought to harmonize and give a pleasing aggregate. The colouring of objects in the fore-ground requires particular attention, as neither a wall, a bank, or a tree presents

one uniform tint; on the contrary, the stones, or bricks, of which the first is composed, always differ from each other in colour; besides, the trickling of dews, the vegetation of different species of moss, the corroding effects of time and the weather, produce characteristic effects extremely picturesque: this is equally observable on wood; and the bark of trees, and banks, present numerous tints in the sand, clay, and stones of which they are composed, exclusive of the variety of plants scattered on their surface. The walls of castles and of monasteries adorned with beautiful masses of ivy, the north sides of houses in damp situations, and trees, are excellent subjects for contemplation in this particular; indeed every substance in a state of decay seems to invite representation, by the beautiful properties they assume, which are still further observable as they become useless to the possessor. The peasant's house, in this instance, in complete ruins, with fallen bricks, or broken plaistered sides, and almost without thatch, is more inviting to the artist than all the splendor of Grecian focades and magnificent porticos. In the same way an old worn-out cart horse is a much fitter animal to draw from, and a finer subject for the pencil, than a sleek and clean poney; and an ass with a rough coat, is more picturesque than the same animal kept in nicer order.

In composing a drawing, the best parts of various views from nature should be selected, always remembering that those parts should never resemble each other, and that none of their lines should be parallel; if nothing more is intended than a good composition such are to be obtained from reality, by merely correct-

ing little errors committed by nature; for instance, a stream of water may flow in nearly a straight line through a most beautiful district, yet thus represented, it would have a bad effect in the drawing; equally disagreeable are two or three hills of similar outlines ranged beyond each other; to turn the stream into a more serpentine form, or change the outlines of the hills, will therefore be no deviation from propriety: it is far otherwise in making a view of any particular place for topographical purposes; in that case, the object to be attained is not an unexceptionable drawing, but a true representation even of deformity.

The best colours are those used in boxes, properly mixed with gum, which rubbed on a tile, and diluted with water in the brush, flow readily, and are very clear.

Nothing will contribute more towards obtaining correctness in drawing than a free and unembarrassed conduct of the black-lead pencil and port-crayon, which should not be held too near the points, nor should the rule and compasses be employed, except in making admeasurements and drawings of architecture; when copying from any given subject, it will greatly expedite the progress to imagine the picture or drawing divided into squares, and the paper in an equal number; by this means the true situation of each figure, within these imaginary squares, may be transferred to the same imaginary squares on the paper. A more mechanical method to copy in the same size as the original, or to reduce or enlarge the copy, is to draw real lines across each, forming an equal number of exact squares, and numbering them throughout so as to correspond: threads stretched across a picture instead of

lines must be less injurious to it, and ought to be preferred.

The pentegraph is an useful instrument, invented for enlarging or reducing the outlines of pictures, drawings, prints, or plans, or copying them of the original size. In drawing from nature, much circumspection should be used in chusing the spot whence the view is to be seen, as a few feet or yards often makes an essential difference in the beauty of the groupes and individual objects; a gentle elevation should be preferred, whence the eye may embrace a large circumference; then fixing upon some certain points, imagine several perpendicular lines, and marking an equal number on the paper, let the horizontal line intersect them, the objects to be represented are thus obtained as in the method of copying by squares. Every peculiarity of the landscape must be caught with avidity, the declination of lines, the apparent lessening of objects, the species of trees, the tendency of the broken fragments on the edges of clouds, and the movements of the foliage and branches by the wind; the seasons should also be observed, as the lights vary greatly with them, and the colouring essentially. Raging billows, waterfalls, and clouds discharging rain, offer many particulars for minute observation, and the shadows of passing clouds have a beautiful effect when chasing each other over the sides of mountains, or are spread like a veil over a large tract of country. In making the lights and shades of a landscape, it must never be forgotten, that whatever place the sun may be in, the light can fall but one way, and that all the difference possible in the shades

are their degrees of strength between morning, evening, and noon, and their strength at either extreme of the day compared with the meridian, as they are very short at that period, and often intermixed with strong reflected light, experienced artists alway prefer morning and evening, as productive of those golden and purple tints which catch upon objects half buried in deep shadow, and give a beautiful effect to the landscape. Claude Lorrain was almost the only painter who thought himself equal to representing the sun, and the silvery effect of his beams, upon water: that he succeeded to admiration must be acknowledged, but it is extremely doubtful whether his pictures will ever be equalled: it is, however, certain, that the attempt has failed in every modern instance. As one step towards imitating the brilliancy of the orb of day, it has been the custom to suppose the sun just beyond the boundary of the picture, by making the sky clear and light on that side, and gradually fading thence through the landscape. As this method is founded upon just principles, the young artist may safely adopt it, though not as an indispensable rule; for the light breaking through clouds, and luminating the centre or front of a view, has an excellent effect, especially if that spot is animated by human figures or cattle. When a building, whether a modern or ancient edifice, is the principal object, the light should be thrown decidedly on it, though that on the side of clouds next to the sun must be the brightest. But as that may be considered too attractive of the attention from the building, the atmosphere ought to be rather dark and tempestuous: because, if there are few clouds, the light distributed

on the globules of moisture floating in the air will overpower even the direct rays of the sun on an opaque body. In shading circular bodies, the light side ought not to cut hard upon the next object, but be softened into it in a slight degree; the brightest light succeeds, then the shading gradually deepens about three quarters through, after which the extremity catches a reflected light, and the outline blends with the tint behind it; in the same manner foliage, the edges of hills, &c. should combine with the light or shade behind them. In representing the angles of houses, the strongest shades must be next the light, whence they decline and become lighter: in this case, and in every particular relating to architecture, it will be most proper to draw from the works of the best masters, and finally from reality, as it is almost impossible to describe the consequences of every little light and shade projected from the ornaments. Contrast, when artfully contrived, is the true secret of producing relief: for instance, a plain light surface will not relieve from the paper; but if the same surface has part of its depth shaded, as if placed obliquely, it assumes solidity; thus, if two deeply darkened objects are connected, they will appear on the same line; but if a faint light, derived by reflection from some neighbouring substance, is thrown upon the most distant, it will detach itself, and give an idea of separation from the other: hence it follows, that shade should always be opposed to light throughout a landscape, but in that judicious manner pointed out by nature, whose operations in this case must be closely examined and ascertained, as they are often so faintly and capriciously performed

as to elude an eye unaccustomed to accurate observation: let it be remembered, besides, that her contrasts are never violent and glaring, ever declining in force with the distance of the objects; those in the front of a view require the most attention, as every part being near, they become perfectly distinct, and must be represented with the strongest colours suited to the substance.

There are some other rules proper in drawing: particular, if a flower is to be copied from nature, it is usual to begin with the centre, proceeding thence with the leaves composing it to the extremities, which method enables the student to lay them one above another in the correct and beautiful manner in which they are disposed by the Great Author of all things. In colouring those fascinating objects, infinite skill is required in blending their tints so as to keep each clear and bright. In observing birds, it will be found that the feathers of the head are smallest, whence they proceed to the tail in five ranges. In this instance, and in drawing animals, every precaution cannot be too closely attended to, which will give their true characteristics.

MECHANICAL DRAWING.

Having completed the necessary instructions for drawing, by the improvement of a native genius, or inclination for the study of the fine arts, which is known to be inherent in some, and utterly unknown to the

majority of mankind, we shall next notice what may be termed Mechanical Drawing, which branch of the art is indispensable in many pursuits, and amusing to all whose time might be less profitably employed. To draw maps, plans, and figures of new inventions well, geometry and perspective must be thoroughly understood, particularly if elevations and sections of buildings are attempted: to proceed regularly, the free use of the black pencil ought to be attained, after which the use of Indian ink, with a fine pen should be acquired, with a facility of drawing lines either with or without a ruler, particularly curves beyond the range of a small compass: to those are to be added the doctrines of light, shade, and reflection, and an easy, careless method of shading, which is readily accomplished if instruments of any kind are to be copied, as they may be placed in the most favourable light at pleasure. Taste is out of the question in this branch of the art, merely suited to the architect, the philosopher or mathematician, and the geographer. Young ladies of fortune, and persons fond of pleasant employment, may derive information from the following modes of proceeding in copying, traeing, &c. &c.

Tracing Paper

Is readily made by taking a sheet of very thin silk, or other paper, and rubbing it over gently with some soft substance, filled with a mixture of equal parts of drying oil and oil of turpentine, which suspended and dried will be fit for use in a few days, or it may be had at any of the colour shops. Lay this transparent material on the print or drawing to be transferred, and with

a sharp black lead pencil trace the outlines exactly as they appear through the paper. If more permanent or stronger lines are wished, ink mixed with ox-gall will be necessary to make it adhere to the oiled surface.

Tracing against the Light.

There are two methods: one to lay the print, &c. flat against a pane of glass, with thin paper over it, when the lines appearing through it are to be followed by the lead: the other is more convenient, and consists of a frame inclosing a square glass, supported by legs, on which the paper is laid as before, and a candle placed behind the glass. A pen and ink may be used in this manner, but they cannot in the former instance.

Another Method of using Transparent Paper.

Take a piece of the size required, and rub it equally over on one side with black lead reduced to a powder, till the surface will not readily soil a finger, then lay a piece of white paper with the blacked paper, and leaded side next to it, under the print, and securing them firmly together with pins at the corners, proceed to trace the outlines with a blunt point, and some degree of pressure, which will transfer the lead to the clean paper precisely in the direction the point passed over the print; this may be corrected with the black-lead pencil, and cleansed of any soil by the crumbs of stale bread.

Copying Drawings, &c. with fixed materials.

Rub a thin piece of paper thoroughly and equally with fresh butter, and after drying it well by a fire

cover it with black lead, as before mentioned, or with carmine, lamp-black, or blue-bice, on the side which received the butter. When the operation has so far succeeded, as that the colour will not adhere to any substance passed over it, lay the coloured surface on white paper, the print on it, and trace the subject through with a point as above.

To transfer any Impression with Vermillion.

Mix the colour with linseed oil in a state sufficiently fluid to flow from the point of a pen, with which let every line of the print be accurately traced; then wet the back of it, and turning the face downwards on clean white dry paper, place other paper on the back, and gently rub or press it, till it may be supposed the red lines are completely transferred to the paper from the print.

Writing, or outlines of prints, may be conveyed exactly by the following method. Mix fine vermillion with water, of the same fluidity as ink, and putting it into a vessel containing cotton, use it with a pen in tracing over the subject, making the lines of the same breadth as the original; then wet white paper with gum-water spread by a sponge, and lay the vermillion tracing on it gently, pressing every part till the process is complete: when the print is withdrawn the gum will retain the vermillion, and after it is dried they will become inseparable. This mode, except the gum and paper, is used by engravers, who secure the lines by wax on their copperplates.

There are numerous beauties in the skeletons or fibres of leaves; and it is at least a pleasing, if not an useful employment to collect all, or a part of their varieties, which may be done with decisive accuracy as follows;

To obtain the true shape and fibres of a Leaf.

Rub the back of it gently with any hard substance, so as to bruise the fibres, then apply a small quantity of linseed oil to their edges; after which press the leaf on white paper, and, upon removing it, a perfectly correct representation of every ramification will appear, and the whole may be coloured from the original.

Another way, which may be called printing of a leaf. This is effected by carefully touching the fibres with one of those balls lightly covered with ink, used by printers, and impressing it on wet paper. This is done to most advantage by a round stick covered with woolen cloth, rolled backwards and forwards over the paper and leaf.

A substitute may be adopted by rubbing and bruising the leaf, oiling it as before, and scattering powdered black-lead, charcoal, or the powder of burnt cork on it, and pressing it on paper. Other colours may be used, prepared with butter or oil, of which blue-bice is the best, as it serves as a ground for colouring the leaf from nature. The back of the leaf must be exclusively preferred, as the fibres project on that side only.

Stenciling

Is a process well calculated for multiplying of patterns, for working in muslin, &c.: when a print or

drawing is to be copied in this way, it must be placed upon a sheet of white paper, and the outline pricked through both with a pin or needle; the pierced sheet may then be laid on a second clean one, and a muslin bag of powdered charcoal shaken or rubbed over it, when, upon removing the former, the latter will be found a perfect copy.

The Camera Obscura.

The Camera Obscura makes the most pleasing representation of nature hitherto discovered, by which the external objects are reflected on any plane within the chamber in the liveliest colours, and every leaf and animal appear in motion; but unfortunately in a reversed position. The constructing of a camera obscura is a very simple operation: close all the windows of an apartment, and leave a single circular aperture suited for the reception of a convex or plane convex lens in the shutter of that which faces the greatest variety of landscape; then place any smooth white surface before it, at the proper distance, which is to be determined upon the same principle as the movement of the glasses of a telescope, and every portion of the view will be exhibited on it. If the least ray of light makes its way through any other means, the effect will be destroyed; and it will be heightened if the atmosphere is clear and the sun shines bright.

The Portable Camera Obscura

Resembles a wooden box or chest, furnished with a circular or angular projection in the middle, opening from it, and to be directed towards the landscape; be-

yond this aperture, and within the box, is placed a small mirror inclined to an angle of 45 degrees, serving to reflect the exterior rays on a convex lens set in a tube, and the light streaming from this will convey the true forms and colours of the landscape to a paper situated at the proper distance to receive them; this beautiful picture is viewed through an oblong aperture, and may be copied with equal facility and advantage: indeed the most experienced artist may obtain hints from the camera obscura, which might escape his notice in drawing directly from reality. The literally darkened chamber furnishes the means of improvement, though some little contrivance is necessary to use them conveniently, and obviate the unpleasant circumstances attending the drawing of reversed objects; it may, however, be recollected, that anything drawn in this position will become right on turning the paper; or the person desirous of so doing may place the paper on some low article of furniture, and standing over it view every part in its proper state; but the portable camera obscura, being expressly intended for making of correct drawings, should be preferred, as it affords a horizontal plane for the hand to rest on conveniently.

PAINTING.

PAINTING is the art of representing to the eyes, by means of figures and colours, every object in nature that is discernable by the sight; and of sometimes expressing, according to the principles of physiognomy and by the attitudes of the body, the various emotions of the mind. A smooth surface, by means of lines and colours, represents objects in a state of projection; and may represent them in the most pleasant dress, and in a manner most capable of enchanting the senses. Still farther the objects which delight us by their animation and lively colours, speak to the soul, by giving us the image of what we hold most dear, or by indicating an action which inspires us with a taste for innocent pleasures, with courage, and with elevated sentiments. Such is the definition, and such are the effects of painting.

By an admirable effort of human genius, painting offers to our eyes every thing which is most valuable in the universe. Its empire extends over every age and country. It presents to us the heroic deeds of ancient times as well as the facts in which we are more conversant, and distant objects, as well as those which we daily see. In this respect it may be considered as a supplement to nature, which gives us only a view of present objects.

The painter who invents, composes, and colours conceptions which are only agreeable, and which speak merely to the eye of the spectator, may be reckoned to possess the first merit in the style of embellishment and decoration.

The painter who is distinguished for noble and profound conceptions; who, by means of a perfect delineation, and colours more capable of fixing the attention and dazzling the eye, conveys to the spectators the sentiments with which he himself was inspired: who animates them with his genius, and makes a lasting impression on their minds; this artist is a poet, and worthy to share even in the glories of Homer.

It is in forming this great idea of his art that the painter becomes himself great.

But if he seek only to please or astonish by the illusions of colours, he must rest contented with the secondary merit of flattering the eye with the variety and opposition of tints, or of making an industrious assemblage of a great multiplicity of objects. It is in painting as it is in poetry. The man who clothes trivial or common ideas in verse, exercises the profession of twisting syllables into a certain measure. The poet who clothes in good verse ideas and sentiments that are merely agreeable, professes an agreeable art. But he who, by the magic of verse, of ideas, of imagery, or of colours, adds sublimity to the sublime objects of nature, is a great poet and a great painter. The painter and statuary, who excel in their professions, deserve all the respect due to genius; they are of the number of those men whom nature, sparing of

her best gifts, grants but occasionally to the inhabitants of the earth. If they are sublime, they elevate the human race; if they are agreeable only, they excite those sweet sensations necessary to our happiness.

In laying before our readers a succinct view of this noble art, we shall, first, give an account of the schools and of the different merits of painters, and then proceed to lay down the principles of the art.

OF THE SCHOOLS OF PAINTING.

A SCHOOL, in the fine arts, denominates a class of artists who have learned their art from a certain master, either by receiving his instructions, or by studying his works; and who of consequence discover more or less of his manner, from the desire of imitation, or from the habit of adopting his principles.

All the painters which Europe has produced since the renovation of the arts are classed under the following schools: the school of Florence, the school of Rome, the school of Venice, the Lombard school, the French school, the German school, the Flemish school the Dutch school, and the English school.

School of Florence.

This school is remarkable for greatness; for attitudes seemingly in motion; for a certain dark severity; for an expression of strength, by which grace perhaps is excluded; and for a character of design approaching to the gigantic. The productions of this school may

be considered as over charged; but it cannot be denied that they possess an ideal majesty, which elevates human nature above mortality. The Tuscan artists, satisfied with commanding the admiration seem to have considered the art of pleasing as beneath their notice.

This school has an indisputable title to the veneration of all the lovers of the fine arts, as the first in Italy which cultivated them.

Painting which had languished from the destruction of the Roman empire, was revived by Cimabue, born of a noble family in Florence in the year 1240. This painter translated the poor remains of the art from a Greek artist or two into his own country. His works as may easily be imagined, were in a very ordinary style, but they received the applause and admiration of his fellow citizens; and if Cimabue had not found admirers, Florence would not in all propability have been honoured with Michael Angelo. The number of painters became soon so considerable in Florence that in the year 1350 they established a society under the protection of St. Luke.

Massolino, towards the beginning of the 15th centuary, gave more grandeur to his figures, adjusted their dress better, and shed over them a kind of life and expression. He was surpassed by Massacio his pupil; who first gave force, animation, and relievo to his works.

Andrew Castagna was the first Florentine who painted in oil. But Leonardo da Vinci and Michael Angelo, contemporary painters, were the glory of the school of Florence. Michael Angelo was superior to

Leonardo in grandeur, in boldness of conception, and in knowledge of design; but Leonardo was superior to him in all the amiable parts of the art. Leonardo, possessed of a fine imagination, and full of sensibility, devoted himself in painting to express the affections of the soul; and if, in this sublime branch of the art, he was afterwards surpassed by Raphael, he had at least the glory not only of exceeding all the painters who went before him, but of pursuing a path which none of them had attempted. His design was pure and neat, and not wholly destitute of greatness. He never went beyond nature, and he made a good choice of objects for imitation.

Michael Angelo, less formed to experience sweet affections than vehement passions, sought in nature what the strength of man might accomplish, not that which constitutes beauty. He delighted in being great and terrible, more than in graceful attitudes. Well acquainted with anatomy, he knew more exactly than any other artist in what manner to express the joining of the bones of the body, and the office and insertion of the muscles; but too eager to display his knowledge of anatomy, he seems to have forgotten that the muscles are softened by the skin that covers them; and that they are less visible in children, in women, and in young men, than in confirmed and vigorous manhood. "In his figures (says Mengs) the articulations of the muscles are so easy and free, that they appear to be made for the attitude in which he represents them. The fleshy parts are too much rounded, and the muscles are in general too large and of too equal strength. You never perceive

in his figures a muscle at rest; and although he knew admirably well how to place them, their action is very frequently inconsistent with their situation."

"He did not possess (says Sir Joshua Reynolds) so many delightful parts of the art as Raphael; but those which he had acquired were of a more sublime nature. He saw in painting little more than what might be attained in sculpture; and he confined it to exactness of form and the expression of passions."

He informs us in one of his letters, that he modelled in earth or wax all the figures which he intended to paint. This method was familiar to the great painters of his time, and ought never to be abandoned. It appears, that in representing them in this manner in relievo, the painter can imitate them much more exactly than when they are drawn with a crayon or pencil on a plain surface.

"Michael Angelo (continues Sir Joshua Reynolds) never attempted the lesser elegancies and graces in the art. Vasari says, he never painted but one picture in oil; and resolved never to paint another, saying it was an employment only fit for women and children.

"If any man had a right to look down upon the lower accomplishments as beneath his attention, it was certainly Michael Angelo; nor can it be thought strange, that such a mind should have slighted, or have been with-held from paying due attention to all those graces and embellishments of art which have diffused such lustre over the works of other painters."

Roman School.

Ancient Rome, rich with the works brought from Greece, or finished in its own bosom by Grecian artists, handed down in its ruins the remains of that glory to which it had been elevated. It was by the study of these remains that the modern artists were formed: they derived from them the knowledge of design, the beauty of exquisite form, greatness of style and justnesss of expression, carried to that length only which did affect the beauty of the figure. From them also they derived the principles of the art of drapery; and they followed these principles even while they made the drapery of modern paintings more large and flowing than what was practised by the ancient sculptors. The Roman school was altogether devoted to the principal parts of the art, to those which require genius and vast conceptions; and was no farther occupied with colours than what was necessary to establish a difference between painting and sculpture, or rather between painting varied with colours and in claro-obscuro.

At the head of this school is placed Raphael Sanzio, born at Urbino, in 1483.

In the early part of his life he had accustomed himself to copy nature with great exactness, but without being solicitous about the choice, or perhaps ignorant that any choice was necessary. When he saw the works of Leonardo da Vinci and Michael Angelo, they gave to his genius a new direction; he perceived that there was something more in the art of painting than a simple imitation of truth. It was at Rome, in the

works of the ancients, that he found models of ideal beauty which he afterwards imitated.

His design is admirable—he excelled in representing the character of philosophers, apostles, and other figures of that kind. The Greeks were superior to him in ideal figures, but if he did not succeed in embellishing nature in the same high degree, he saw, at least, and imitated her in whatever was expressive and beautiful. The Greeks (says Mengs,) sailed with majesty between earth and heaven; Raphael walked with propriety on the earth.

Composition is in general (says the same author) of two kinds; Raphael's is the expressive kind; the other theatrical or picturesque, which consists of an agreeable disposition of the figures. Lanfranco was the inventor of the last, and after him Pietro de Cortona. The preference is given to the genius of Raphael, because reason presided over all his works, or at least the greatest part of them. He never indulged himself in common ideas, nor ever suffered his accessary figures to turn the attention from the principal object of the piece.

The excellency of Raphael, lay in the propriety, beauty, and majesty of his characters; his judicious contrivance of composition, correctness of drawing, purity of taste, and the skilful display of other men's conceptions to his own purpose.

Venetian School.

The school of Venice is the child of nature. The Venetian painters, not having under their eyes, like the Romans, the remains of antiquity, were destitute of

the means of forming a just idea of the beauty of forms and of expression; they copied, without choice, the forms of nature, but were chiefly delighted with the beauties which presented themselves in the mixture and variety of colours. Colouring was their chief object; and they endeavoured by the agreement and opposition of colours, and by the contrast of light and shade, to produce a vigorous effect, to demand and fix the attention. In this they succeeded.

Dominico, who was the second Italian artist who painted in oil, had educated, before he quitted Venice, Giacomo Bellino, who had two sons, Gentile and Giovanni, both of whom were painters; the latter contributed much to the progress of his art in painting constantly in oil and after nature. Giorgione and Titian, his scholars, are considered as the founders of the Venetian school.

Giorgione distinguished himself by a better taste in designing than his master; but he chiefly surpassed him in colouring. He died in his 32d year.

Taziano Vecelli, better known by the name of Titian, was instructed in the school of Bellino, to copy nature in the most servile manner; but when he had seen the works of Giorgoine, he began to study the ideal in colouring. The truth of history is not to be expected in his paintings or in those of the artists of the same school. He paid little attention to the consistence of scene, to the costume, to expression adapted to the subject; or, finally, to the accommodation of parts which characterise the works of those who have studied the ancients.

The artists of the Florentine and Roman schools

painted most commonly in water-colours, or in fresco; and, instead of nature, they finished their works from their first sketches. Titian painted in oil, and finished from the objects in nature; and this practice, joined to exquisite talents, gave the greatest truth to his colours. His being a portrait painter was also of advantage to him as a colourist. In this department he was accustomed to the colours of nature in carnations and draperies.

He was a landscape painter; and here he also took the colours from nature.

Titian has, in general, little expression in his pictures; and he sometimes introduces figures which augment the coldness of the piece; for if it be true that heads, even in historical painting, ought to be studied from nature, it is true also that individual nature should not be presented, but one general and ideal. The painter fails in the effect, which he ought to produce, if, when he represents Achilles, Hector, and Cæsar, his personages are familiar to our observation.

Lombard School.

The distinguishing characteristics of this school are grace; an agreeable taste for design, without great correction; a mellowness of pencil; and a beautiful mixture of colours.

Antonio Allegri, called Corregio, was the father and greatest ornament of this school; he began by imitating nature alone, but as he was chiefly delighted with the graceful he was careful to purify his design:—he made his figures elegant and large; and varied his out-

lines by frequent undulations; but was not always pure and correct, though bold in his conceptions.

Corregio painted in oil, and gave the greatest delicacy and sweetness to his figures; as his character led him to cultivate the agreeable, his pictures were not only pleasing but were also captivating. He carefully sought transparent colours to represent shades conformable to nature, and adopted a manner of glazing which actually rendered his shadows more obscure. It is chiefly in this that he deserves to be imitated; for his lights are too clear, and somewhat heavy; and his fleshy parts are not sufficiently transparent. Harmony and grace are connected together; and on this account Corregio is excellent also in harmony. As the delicacy of his taste suffered him not to employ strong oppositions, he naturally became a great master in this part, which chiefly consists of easy gradations from one extreme to another. A delicate taste in colours, a perfect knowledge of the claro obscura, the art of uniting light to light, and shade to shade, together with that of detaching objects from the ground; inimitable, grave and perfect harmony, were the qualities which distinguished Corregio from all painters and placed him near the head of his profession.

The Carracci, Lewis, Augustin and Annibal, formed what is called the second Lombard school, which is frequently distinguished by the name of the school of Bologna.

Lewis was the master of the other two; he had studied the works of Titian and Paolo Veronese, of Andrea del Sarto, of Corregio, and of Julia Romano; but he chiefly endeavoured to imitate the manner of

Corregio. Annibal fluctuated between Corregio and Titian. Augustin, their rival in painting, had his mind cultivated by learning, and devoted part of his time to poetry, music, and manly exercises.

These three painters often employed their talents upon the same work; and their united labours seemed to be animated with the same spirit.

They established an academy at Bologna, called l'Academia degli Desiderosi; but it was afterwards known by the name of the Academy of the Carracci. In this school was taught the art of constructing models, perspective, and anatomy; lessons were given on the beautiful proportions of nature, on the best manner of using colours, and on the principles of light and shade. The academy separated on Annibal's going to Rome to adorn the gallery of the cardinal Farnese.

The works of the Carracci are often from the resemblance of their manner, confounded together; nevertheless, each of them has a decided character distinct from the other two. Lewis had less fire, but more grace and grandeur; Augustin had more spirit in his conception, and more pleasantness in his execution. Annibal is characterized by boldness, by a design more profound, a more happy expression, and an execution more solid.

Lodovico Carracci (says Sir Joshua Reynolds) appears to me to approach nearest to perfection; his unaffected breadth of light and shadow, the simplicity of colouring, which holding its proper rank, does not draw aside the least part of the attention from the subject; and the solemn effect of that twilight which seems diffused over his pictures, appears to me to

correspond with grave and dignified subjects, better than the more artificial brillancy of sunshine which enlightens the pictures of Titian.

Annibal is esteemed by the best judges as a model for beauty and design. Those who blame him for becoming less a colourist at Rome than he was at Bologna, ought to recollect that it is his performances at Rome which have chiefly secured his reputation. Severe critics have maintained, that his design is too little varied in the figures; that he excels only in male beauty, and that in imitating ancient statues, he excites some resemblance, but without arriving at that sublimity of ideas and of stile, which characterise the ancients.

The success of Annibal, and the reputation which he acquired, have been pernicious to the art. His successors, deluded by these considerations, have made him the object of their imitation, without ascending to the sources from which he derived his knowledge, and which they never could equal. The result has been, that instead of becoming equal to Annibal, they have often copied his imperfections.

French School.

This school has varied so much under different masters, that it is difficult to characterise it. Some of its artists have been formed on the Florentine and Lombard manner; others, on the Roman; others on the Venetian; and a few have distinguished themselves by a manner which may be called their own. In speaking in general terms of this school, it appears to have no peculiar character; and it can only be distinguished

by its aptitude to imitate easily any impression; and it may be added, speaking still in general terms, that it unites in a moderate degree the different parts of the art, without excelling in any one of them.

It is equally difficult to determine the progress of painting in France. Miniature painting, and painting on glass, were early cultivated in that country; and in these two kinds, the Italians had often recourse to French artists.

Cousin, a painter on glass, and portrait painter, was the first who established any kind of reputation in France, he was correct, but possessed very little elegance of design. Painting, for some time encouraged by Francis the First, fell into a state of langour, from which it was not recovered till the Reign of Louis XIII. Jacques Blanchard, formed in the Venetian school, and called the French Titian, flourished about this period; but as he left no pupils to perpetuate his manner, he must be regarded as a single good artist, and not as a founder of the French school.

In the same manner Poussin, whom they call the Raphael of France, educated no pupils, and formed no school. His stile and manner of painting, are described by Sir Joshua Reynolds as simple, careful, pure and correct. No works of any modern have so much the air of antique painting, as those of Poussin. His best performances have a certain dryness of manner, which seems perfectly correspondent to the ancient simplicity that distinguishes his stile. In the latter part of his life he changed from this manner into one much softer and richer, where there is a greater union between the figures and the ground. His favourite

subjects were ancient fables; and no painter was ever better qualified to paint such subjects, as he was eminently skilled in the knowledge of the ceremonies, customs, and habits of the ancients; and well acquainted with the different characters which those who invented them gave their allegorical figures.

Poussin more admired than imitated, had no manner of influence in forming the French school. Simon Vouet had this honour, because his pupils, in the happy age of the arts in France, conferred on it the greatest splendour. Vouet was a man of distinguished abilities; but the school which he erected would have had no continuance, if his scholars had pursued his manner of painting. He had a kind of grandeur and facility; but his design was false with regard to colours, and without any idea of expression. He had the merit of destroying the insipid taste which reigned in France, and pointing the way to a better.

If Vouet laid the foundation of the French school, Le Brun finished the edifice. He had a noble conception, and a fruitful imagination; on no occasion was he inferior to the vast compositions he undertook. Few painters have united a greater number of essential qualities and accessories of the art:—he drew well, but his design was far from being so elegant as that of Raphael, or so pure as that of Domenichino; and it was less lively than that of Annibal Carracci, whom he had taken as a model. In drapery he followed the Roman school; but in this part he was not equal to the painter of Urbino. He had studied the expression of the affections of the soul; but after observing the general characters, and establishing the principal traits

of expression, he thought he had reached the whole extent of this subject which is so infinitely extended. He was delighted with great compositions; and he gave them life, animation, and variety; but he wanted the vigour and inspiration of Raphael. His compositions are founded on philosophical principles; but those of Raphael are created. Le Brun thought well; Raphael, Poussin, and Le Seur thought most profoundly. Le Brun had elevation, but he was not elevated, like Raphael, to the sublime.

In colouring, Le Brun did not follow the painters of the Venetian school. The sweet attractions, and strong and solid colours of the schools of Rome and Lombardy, seem rather to have been the object of his imitation; and from them also he learned an easy, agreeable, and bold management of the pencil.

Eustach le Sueur was the cotemporary and rival of Le Brun, and no painter approached nearer to Raphael in the art of drapery, or in disposing the folds in the most artful and the noblest manner. His design was in general more slender than that of Raphael, but, like his, it was formed on the model of the ancients. Like Raphael he represented with art and precision the affections of the soul; like him he varied the hair of the head, according to the condition, the age, and the character of his personages; and, like him, he made the different parts of every figure contribute to the general effect. His intention in composing was to express his subject, not to make shining contrasts or beautiful groupes or figures, not to astonish and bewitch the spectator by the deceitful pomp of a theatrical scene, or the splendour of the great machine,

His tones are delicate, his tints harmonious, and his colours though not so attractive as those of the schools of Venice and Flanders, are yet engaging. They steal peaceably on the soul, and fix it, without distraction on the parts of the art, superior to that of colouring.

If Le Sueur had lived longer, or if, like Le Brun, he had been employed under a court, fond of the arts and of learning, to execute the great works of the age, the French school would have adopted a different and a better manner. The noble beauty of his heads, the simple majesty of his draperies, the lightness of his design, the propriety of his expression and attitudes, and the simplicity of his general disposition would have formed the character of this school. The deceitful pomp of theatrical decoration would have been more lately introduced, or perhaps would never have appeared, and Paris might have been the counter part of Rome.

But as Le Brun, by an accidental concurrence of favourable circumstances, was the fashionable painter, to be employed or rewarded, it was necessary to imitate his manner; and as his imitators possessed not his genius, his faults became not only current but more deformed.

The French school not long ago changed its principles; and, if they follow the road which they have marked out, for themselves, they have the chance of becoming the most rigid observers of the law imposed on the Greek artists.

The Count de Caylus, pupil of Buchardon, who by his rank and fortune had the means of encouraging

the imitators of the ancients, and of the masters of the 15th century; first formed the design of restoring a pure taste to the art of painting. He was seconded by the talents of M. Vien, an artist who had only occasion to have his lessons and his examples laid before him.

In this manner commenced a revolution, so much the more wonderful, as it was scarcely ever known that any nation substituted a system of simple and rigid excellence in place of false and glittering taste. The history of all nations, on the contrary, discovers a gradual progress from a rude beginning to perfection and afterwards to a irremediable decay. The French have the prospect of stopping short in this ordinary course. They have begun in a manner which promises success, and the best consequence may be expected from the study of those master pieces of ancient art with which the capital of the French Republic is ornamented, and which, to the honour of the government, are open to the inspection of every one. It is almost needless to mention that these invaluable works are the most capital productions of art, which were formerly at Florence, Rome, Turin, Naples, and the cities in the Austrian Netherlands.

The German School.

In Germany there can hardly be said to be a school, as it is a continuation of single artists, who derived their manner from different sources of originality and imitation. There were some German painters of eminence, when the art, emerging from its barbarous state, first began to be cultivated in Europe. As they were

totally unacquainted with the ancients, and had scarcely access to the works of their contemporaries in Italy, they copied nature alone, with the exception of somewhat of that stiffness, which forms the gothic manner. But this is by no means the case with their successors, part of whom were educated in Flanders, and part in Italy. But if Mengs or Deitrich, were comprehended in this school, there would be nothing peculiar to its manner discovered in their works. It is therefore necessary to confine our observations to the most ancient German painters, in whom the gothic stile is conspicuous.

Albert Durer was the first German who corrected the bad taste of his countrymen. He excelled in engraving as well as painting. His genius was fertile, his compositions varied, his thoughts ingenious, and his colours brilliant. His works though numerous were finished with great exactness; but as he owed every thing to his genius, and as works of inferior merit were by the false taste of the times preferred to his, it was impossible for him altogether to avoid the faults of his predecessors. He is blamed for stiffness, and aridity in his outlines, for little taste or grandeur in his expression, for ignorance of the costume, of ærial perspective, and of gradation of colours; but he had studied lineal perspective, architecture and fortification.

John Holbein, nearly contemporary with Albert Durer, painted in oil and water-colours. He excelled chiefly in history, and in portrait painting. His colours are fresh and brilliant, and his works highly finished; but in his historical subjects, his draperies are not in so good taste as those of Albert Durer.

The Flemish School.

The Flemish school is recommended to the lovers of the art by the discovery, or at least the first practice of oil in painting. It has been generally attributed to John Van Eyck, who was accustomed to varnish his distemper pictures wih a composition of oils, which was pleasing, on account of the lustre it gave them. In the course of his practice, he came to mix his colours with oil, instead of water, which he found rendered them brilliant without the trouble of varnishing. From this and subsequent experiments, arose the art of painting in oil, of which wonderful discovery Van Maudes gives a particular account; but the truth of it is now very much questioned; and it is even proved that this method of painting was discovered long before the time of John Van Eyck. It is admitted that John and his brother Eubert, were the first who brought it into general practice, by shewing the excellence of which it was susceptible; their own paintings having acquired, all over Europe, great reputation for the softness and delicacy of their colours. The attention of the Italian painters was soon excited; and Antonio de Massiny performed a journey into Flanders for the express purpose of acquiring the confidence of John Van Eyck, and of discovering the secret.

John of Bruges was the founder of painting as a profession in Flanders. Peter Paul Reubens was the founder of the art. This extraordinary person produced an immense number of works. He excelled equally in historical, portrait and landscape painting; in fruits, flowers, and in animals. He invented, and

executed with the greatest facility. The works of Reubens were destitute of that soft inspiration, productive of sweet and pleasant effects so conspicuous in the works of Raphael; but he possessed that sprightliness of genius and strength of mind, which are ever ready to burst forth in wonderful and astonishing effects. His figures appear to be the exact counterpart of his conceptions, and their creation nothing more than a simple act of the will. His chief merit consists in colouring; though in this branch of the art he has not equalled Titian. He is the first among painters eminent for pomp and majesty; the first among those who speak to the eye; and the power of the art is often by him carried almost to enchantment.

Reubens (says Sir Joshua Reynolds) is a remarkable instance of the same mind, being seen in all the various parts of the art. The whole is so much of a piece, that one can scarce be brought to believe but that if any one of them had been more correct and perfect, his works would not be so complete as they appear. If we should allow a greater purity and correctness of drawing, his want of simplicity in composition, colouring, and drapery, would appear more gross.

The Flemish school, of which Reubens is the greatest master, is remarkable for great brilliancy of colours, and the magic of the claro obscuro. To these may be joined a profound design, which is yet not founded on the most beautiful forms; a composition possessed of grandeur, a certain air of nobleness in the figures, strong, and natural expressions; in short a kind of national beauty, whic is neither copied from the ancients,

nor from the Roman or Lombard schools; but which deserves to please, and is capable of pleasing.

The Dutch School.

To speak in general terms, and without regarding a great number of exceptions, the Dutch school carries none of the above qualities to great perfection, except that of colouring. Far from excelling in the beauty of heads and forms, they seem to delight in the exact imitation of the lowest and most ignoble. Their subjects are derived from the tavern, the smith's shop, and from the vulgar amusements of the rudest peasants The expressions are sufficiently marked; but it is the expression of passions which debase instead of ennobling human nature.

It must be acknowledged, at the same time, that the Dutch painters have succeeded in several branches of the art. If they have chosen low subjects of imitation they have represented them with great exactness; and truth must always please. If they have not succeeded in the most difficult parts of the claro obscuro, they, at least excel in the most striking, such as in light confined in a narrow space, night illuminated by the moon or by torches, and the light of a smith's forge. The Dutch understand the gradations of colours. They have no rivals in landscape painting, considered as the faithful representation of a particular scene; but they are far from equalling Titian, Poussin, Claude Lorrian, &c. who have carried to the greatest perfection the ideal landscape; and whose pictures, instead of being the topographical representation of certain places, are the combined result of every thing beautiful in their

imagination or in nature. The Dutch distinguish themselves by their perspective, by their clouds, sea scenes, animals, fruits, flowers, and insects; and they excel in miniature painting: in short, every thing which requires a faithful imitation, colour, and a nice pencil, is well executed by the Dutch painters.

Holland has also produced history painters, as Octavius Van Been, and Vander Hilst, the rival of Vandycke; but it is not in the works of these artists that we find the character of the Dutch school.

Neither is the origin of their style to be derived from the work of Lucas of Leyden; though from the time he flourished, viz. about the end of the fifteenth century, he may be considered as the partiarch of the Dutch school. Lucas painted in oil, in water-colurs, and on glass; and the kinds of his painting were history, landscape, and portrait.

If miniature painting be considered as a character of the Dutch school, Cornelius Polembourg may be regarded as the father of it. He possessed the colour, delicacy of touch, and disposition of the claro obscuro, which chiefly distinguished this school; and if any thing is to be added, it is want of correctness in his design.

But if the choice of low figures is its chief characteristic, this is to be found in the greatest perfection in the works of the celebrated Rembrandt Vanryn; and it is the more offensive in this artist, as his compositions frequently required an opposite choice of figures. As his father was a miller, near Leyden, his education must altogether have depended on the exertion of great talents, and the study of nature. He copied the gro-

tesque figure of a Dutch peasant, or the servant of an inn with as much application as the greatest masters of Italy would have studied the Appollo of Belvidere, or the Venus de Medicis. This was not the manner of elevating himself to the noble conceptions of Raphael; but it was acquiring the imitation of truth in vulgar painting.

Rembrandt (says Mr. Descamps) may be compared to the great artists for colour, delicacy of touch, and claro obscuro. He delighted in great oppositions of light and shade; and he seems to be particularly attentive to this branch of the art. His workshop was occasionally made dark, and he received the light by a hole, which fell as he choose to direct it to the place which he desired to be enlightened. His painting is a kind of magic; no artist knew better the effects of different colours mingled together, nor could better distinguish those which did not agree, from those which did. He placed every tone in its situation with so much exactness and harmony, that he needed not to mix them, and so destroy what may be called the flower and freshness of the colours.

Such is the power of genius, that Rembrandt, with all his faults, (and they are numerous),is placed among the greatest artists by Mr. Descamps, who had attentively examined his works, and was himself an artist.

John de Laer, a miniature painter, and who made choice of his subjects from common life, deserves a distinguished place in the Dutch school. He painted hunting-scenes,the attacks of robbers, public festivals, landscapes, and sea views. He had a correct design and employed vigorous and lively colouring.

Van-Ostade, although born at Lubeck, Gerrard Dow, Metzu, Miris, Wouvermans, Berghem, and the celebrated painter of flowers Van Huysum, belong to the Dutch school.

The greater part of the schools of which we have treated have no longer any existence. Italy alone had four schools, and there only remain at present a very few Italian artists known to foreigners. The school of Reubens is in vain sought for in Flanders. If the Dutch school still exists, it is not known beyond the precincts of Holland. Mengs, a German artist, has rendered himself famous in our days; but it was in Italy that he chiefly improved his talents, and exercised his art. M. Dietrich, another German has made himself known to strangers; but two solitary artists do not form a school.

The English School.

This school has been formed in our time. It is connected with the Royal academy, in London, instituted in 1766: but although as a school it did not exist before that time, yet ever since the revival of the arts and the consequent encouragement given to them by the sovereigns of Europe, England has possessed portrait painters of ability; and perhaps it has been owing only to the remarkable partiality of the nation for this branch of the art, that the more noble one of history painting has been neglected.

Hans Holbein is ranked by Du Piles among the German painters; yet he painted his most celebrated works in England. He was the first painter of eminence encouraged by Henry the Eighth, who excited by the

fame which his contempories Francis I. and Charles V. had gained as patrons of the arts, employed him, and invited Titian to England; but merely as a portrait painter—whether the reward offered was thought adequate to his merit, or for some other cause, perhaps the knowledge that his talents for historical design would be depreciated, he firmly rejected the overture. The public works of Holbien, in England, are four only, as enumerated by Mr. Walpole, which are rather groupes of portraits than history.

Nothing could be more unfavourable to female beauty, than the dress of those times: Holbein's men are therefore much more characteristic than his ladies; even his Anna Bulleyne is deficient in loveliness, as he portrayed her. In his likeness of Anne of Cleves, he is said to have sacrificed truth to flattery; yet the original, which is in the possession of Mr. Barret, of Lee, in Kent, is below mediocrity. There are in his Majesty's collection, a series of portraits of persons of quality in the reign of Henry the Eighth, sketched upon paper, with crayons, probably taken at a single sitting. They have lately been engraved by Bartolozzi, with all the strength and spirit of the originals.

Holbien was as celebrated in miniature, as in oil colours. He made a great number of designs for engravers, sculptors, and jewellers. He died at his residence at Whitehall, in those lodgings which were afterwards the paper-offices.

The fame of Isaac Oliver, who flourished about the latter end of the reign of Elizabeth, as a miniature painter, is well known:—he received some instructions from Frederico Zucchero, who was in England at that

time, where among other portraits, he painted that of the unfortunate Mary, Queen of Scots. Oliver drew well, and made some admirable copies from the Italian masters. Greatly as Isaac was celebrated he was afterwards exceeded by his son Peter, who drew portraits of King James the First, Prince Henry, Prince Charles and most of the court.

About this period Cornelius Jansens, a skilful portrait painter, came to England from Amsterdam, and painted the king, and many of the nobility; but his merits being eclipsed by Vandycke, of whom he was jealous, and the civil war breaking out, he fled from England. Cornelius Jansens was remarkable for high finishing in his draperies; many of which are black, which seems to add roundness, relief and spirit, to his figures and carnations. He is said to have used ultra marine in the black colours, as well as in the carnations, to which may be attributed their lustre even at this day. The duke of Beaufort has a capital portrait of Jansens by himself; but one of his best performances is the Rushout family, at Northwick, in Worcestershire.

Daniel Mytens was a popular painter in the reign of James, and Charles I. He had studied under Rubens, and was for some time principal painter to Charles, but was deprived of his place when Vandycke arrived in England. Charles, however continued his pension during life.

Vandycke had his first instruction from Vanbalen, of Antwerp, but he soon found in Reubens a master every way more suited to direct his genius, and to mature that consummate taste, which he very early showed marks of possessing. Under the instructions

of Reubens, he acquired such skill in his art that the portrait of his master's wife, which he painted while he was yet his disciple, is esteemed one of the best pictures in the low countries. He painted for his master two admirable pieces, one representing Christ seized in the garden, and the other the crowning him with thorns. When he left Reubens, he travelled into Italy; and on his return, having established his reputation as one of the first painters of the age, he was invited to England, where he was knighted by Charles I. and married one of the handsomest ladies of the court, the daughter of Lord Ruthven, Earl of Gowry. Towards the latter end of his life he went to France, in hopes of being employed in the great gallery of the Louvre; but not succeeding, he returned to England, and proposed to the king to make cartoons for the banquetting-house at White-hall; but his demand of £80,000 being judged unreasonable, whilst the king was treating with him for a less sum, the gout, and other distempers put an end to his life.

Dobson had merited from Charles I. the title of the English Tintoret, before his premature death, in 1646 at the age of only thirty-six years. He was the father of the English school of portrait painting; and though sometimes unequal, had much the manner of his master Vandycke. He resided much at Oxford, and left there the portraits of himself and wife, and of Sir Tradescant, and his friend Zythepsa, the Quaker, in the staircase of the Ashmolean Museum. Dobson sometimes painted history. His decollation of St John, at Wilton, and the astronomer and his family, at Blenheim, are among those which are most known and admired.

Lely was in the former part of his life, a landscape painter, but was induced to practice portrait painting, perhaps from the reputation and emolument which its professors obtained in England. Lely was chiefly celebrated for painting females; and it is sometimes objected to him that his faces have too great a similarity of expression. The languishing air, the drowsy sweetness peculiar to himself, and

"The sleepy eye that spoke the melting soul,"

is found in nearly all the pictures of females by this painter.

His crayon drawings are admirable. He drew the portrait of Charles I. when a prisoner at Hampton-Court. Charles II. knighted him, and made him his principal painter.

Kneller was the fashionable artist in the reigns of James II. and William:—among an infinity of portraits there are some which bear the marks of excellence. Dr. Wallis, the mathematician, and Lord Crew, both for colouring and expression, are in a great style. The latter was admired by Sir Joshua Reynolds for the air of nobility it possesses. Kneller is said to have drawn ten crowned heads, viz. four kings of England, and three queens; the Czar of Moscow, the Emperor Charles, and Louis XIV. Notwithstanding the negligence which is manifest in most of his works, which arose from the desire of gain, his genius is very apparent.

Thornhill's pencil has produced several great works; those in fresco in the dome of St. Paul's and the painted hall at Greenwich, are too well known to need

describing! The works of his son-in-law, Hogarth, are also known to every one conversant with the art. As a painter of natural humour, he stands unrivalled, nor can it be expected that his more serious moral works will ever be equalled, still less surpassed, by any future artist.

Richardson was a portrait painter of eminence: to his treatise on painting we are indebted for the greatest ornament to the art, Sir Joshua Reynolds, who fixed the destination of his mind on the profession, by the accidental reading of that work.—Hudson was the best pupil of Richardson.

The merit of Sir Joshua Reynolds, as a portrait painter, cannot be attributed to Hudson's instructions since his manner seems entirely his own. Sir Joshua was born at Plipton, in Devonshire, in the year 1723: his relations still preserve some frontispieces to the lives of Plutarch, as specimens of his early predilection for his art, and the promise he gave of becoming eminent in it. He became pupil to Hudson about 1743; who, amongst other advice, recommended him to copy Guerchino's drawings, which he did, with such skill, that many of them are preserved in the cabinets of collectors, as the originals of that master. About the year 1750, he went to Rome to prosecute his studies, where he remained nearly two years, and employed himself in rather making studies from, than copying the works of the great painters: he amused himself with painting caricatures, particularly one of all the English then at Rome, in the different attitudes of Raphael's celebrated school at Athens.

An ingenious critic thus delineates Sir Joshua's pro-

fessional character: "Sir Joshua Reynolds was, most assuredly, the best portrait painter that this age has produced: he possessed something original in his manner, which distinguished him from those painters who preceded him. His colouring was excellent; and his distribution of light and shadow so generally judicious and varied, that it most clearly showed that it was not a mere trick of practice, but the result of principle. In history painting, his abilities were very respectable; and his invention and judgment were sufficient to have enabled him to have made a very distinguished figure in that very arduous branch of his profession, if the exclusive taste of his country for portraits had not discouraged him from cultivating a talent so very unproductive and neglected. His drawing, though incorrect, had always something of grandeur in it."

To his own pictures might well be applied what he used to say respecting those of Reubens: "They resemble," said he, "a well-chosen nosegay, in which, though the colours are splendid and vivid, they are never glaring or oppressive to the eye." Sir Joshua was a great experimentalist, with respect to the composition of his colours: at first he used preparations from vegetables, which he relinquished for minerals: he is known to have purchased pictures by Titian, or his scholars, and to have scraped off the several layers of colouring, in order to ascertain it, and discover his secret.

The English school of painting must acknowledge Sir Joshua Reynolds as its great founder, under Royal auspices in the establishment of the Academy. The pure precepts which he laid down in his annual orations,

were exemplified in his own works: his most favorite paintings are:—1. Garrick between Tragedy and Comedy. 2. The Ugolino in prison, in which he has imitated Michael Angelo in his "terribil via," as it is called by Augustino Carracci, in his sonnet on painting. It is Sir Joshua's triumph in the art. 3. The Nativity. 4. The Infant Hercules. 5. The death of Cardinal Beaufort, in which are united the local colouring of Titian, with the chiaro scuro of Rembrandt. 6. Mrs. Siddons. 7. Mrs. Billington. 8. Robin Goodfellow. 9. Cimon and Iphigene. 10. Holy Family, which displays a novel and beautiful manner of treating that very frequent subject.

To speak generally of the English school, their colouring is less glaring than that of the Flemish or Venetian masters. Their talents are more admirable in portrait than history, particularly in those of females. Examine (says a French writer) a picture of a French woman, painted by an artist of that nation, and you will generally find, in place of expression, a forced grin, in which the eyes and forehead do not partake, and which indicates no affection of the soul. Examine the picture of an English woman done by one of their painters, and you observe an elegant and simple expression, which makes you at once acquainted with the person represented.

Perhaps it might be difficult to assign to the English school, as exhibited in the Royal Academy, any perfect discrimination; as each painter, either implicitly follows his own genius, or attaches himself to that particular manner of the foreign schools which approaches nearest to his own ideas of excellence; but there are

other exhibitions in which the best painters of the age have exerted a successful competition. Alderman Boydell's Shakespeare Gallery; Macklin's Gallery of Subjects, taken from the English poets; Boyer's gallery of those illustrative of English history; and Fuseli's, from Milton, all by his own pencil, are very honourable testimonies of the spirit of private individuals in the cause of the arts.

Mr. Fuseli's boundless imagination has attempted, with surprising effect, to embody several metaphysical ideas which occur in the Paradise Lost. He has gained a free and uncontrouled admission into the richest regions of fancy; but appears not to be solicitous about how few of his spectators can partially follow him there, or how many are totally excluded.

The excellence of Mr. West in historical and scriptural subjects, is universally allowed. The institution of the Order of the Garter is his grand work, both for composition, correctness and finishing. His death of the stag; the battles of La Hogue and the Boyne; and his death of General Wolfe, are all in an excellent style of composition: the latter is esteemed by an eminent critic, a perfect model of historical composition; as the pictures by Barry, late professor of painting in tne Royal Academy, (in the rooms of the Society for the encouragement of the Arts), and of the poetic style.

In the course of the last twenty years, some of the most able artists this country ever produced, have flourished and died. The great landscape painters of Italy have scarcely exceeded the Smiths of Chichester, Gainsborough, and Wilson, in truth and nature, and the accuracy of their native scenery. It would be

injustice not to mention Wilson's pictures of Niobe, Phaeton, and Cicero, at his Villa; which last rivals even Claude himself.

Mortimer, who died prematurely, in the freedom of his pencil, and the savage air of his banditti, his favourite subject, approached nearly to the boldest efforts of Salvator Rosa.

Of living artists we decline speaking, with the exception of those whose eminence, as men of genius, has placed them beyound competition. In the works of Northcote, Opie, and Lawrence, we hail the continuance of an English school, and the happy application of those classical precepts which its founder, Sir Joshua Reynolds, delivered with so much dignity and effect; and while the artists of this country are influenced by such rules, their improvement must be unrivalled, as by such a local advantage, they will reach a degree of perfection, to which the other modern schools of painting in Europe will in vain attempt to aspire.

PRINCIPLES OF THE ART, &c.

Painting may be defined to be a mode of communicating ideas to the mind, by means of a representation of the visible parts of nature; we adopt this mode of expression, because the art can hardly be said to be confined to the mere representation of visible objects, since by delineating outward demonstrations it is enabled to convey the ideas of internal affections and mental actions. It will necessarily follow that those subjects are the most immediately within the province

of our art, whose essential qualities are as it were contained in the visible parts of things, or most capable of being expressed by objects of sight; and this, though a truism, we have thought it necessary to state, as experience every day shews, that it is not sufficiently attended to. By the essential qualities of a subject, we must be understood to mean those which give it its interest.

The only means by which the painter can communicate his ideas to the spectator, or in other words, tell his story, are combinations of figures and other visible objects, the representation of gesture, and the expression of countenance.

As the powers of writing, in the way of narrative, are such as to enable it to convey to the reader a just idea of a succession of transactions or events; whereas it cannot by the most laboured description give us any other than a confused or erroneous notion of the situation of a building, the windings of a river, the forms of a mountain, or the beauty and expression of a countenance; so painting, inasmuch as it is incompetent to relate the conspiracy, or record the oration, is proportionably rich in its means of description. As description is the most arduous task of language, so narration is the great difficulty of painting; a difficulty however not always insurmountable to the artist, who to a competent knowledge and practice in the several component parts of his art, adds that of judgment in the choice of his subject, as will presently appear.

In a picture, the artist must necessarily choose one point of time for his representation, but the usual doctrine that a picture can absolutely express no more

than this one moment of the story, requires some illustration, as otherwise the inconsiderate might naturally be led to underrate the powers of communication given to our art. The truth we believe is, that though a picture must represent one moment of time only, yet in that representation, the memorial, as it were, of past moments, may be recorded, and the idea of future ones clearly anticipated; and though this doctrine may, upon first sight, appear opposed to generally established opinion, a little reflection will, we are assured, convince any one of its truth.

It will require very little argument to shew, that many of the bodily actions of men do indicate, and, under particular circumstances, demonstrate certain other actions to have taken place previously; which is certainly expressing the past in the present; nor will it be more difficult to find instances of a present action denoting some future one; that is, expressing the future in the present. A figure walking or running, denotes a past, a present, and a future action. The sword of the soldier drawn and lifted up over the neck of the beautiful St. Catharine, denotes a future act or event; that of her head being severed from her body; the hardened executioner forcing his sword into the scabbard, after having performed his office, as clearly shews what has gone before.

Two thing should concur to render a story eminently eligible for painting. First, the incident or act to be represented should be of an unequivocal nature; such as, when represented, can leave no doubt on the mind of the observer as to its meaning; and secondly, either the cause of the act, or its probable con-

sequence or result, should be such as is capable of being expressed by objects in the picture; but when both the cause or the end proposed, in the act represented, and the consequence of that act, can be made evident to us in a picture, such a picture is a narration, becomes truly a dumb poesy, and creates a most lively interest in our minds, possessing as it does, those properties which, as Aristotle observes, are necessary to the perfection of a drama; a beginning, a middle, and an end.

When we behold a representation of the Corinthian maid tracing the shadow of her favoured youth on the wall, love, the cause of the action, is rendered apparent by the endearments attending it: the consequence, which we are told was the invention of painting, is not evident to one uninformed of the tradition. Not so in Mr. Fuseli's pathetic composition of Paolo and Francesca, from Dante. Here we are at a loss as to no one of these particulars; the picture in every respect explaining itself with as much force, and as unequivocally as the poem. Love urges the stolen kiss and guilty dalliance, and the consequence is as evidently the destruction of the lovers by the avenging and uplifted hand of the insulted husband.

Of Invention.

Invention, in painting, consists principally in three things: first the choice of a subject properly within the scope of the art; secondly, the seizure of the most striking and energetic moment of time for representation, and lastly, the discovery and selection of such objects, and such probable incidental

circumstances, as, combined together, may best tend to develope the story, or augment the interest of the piece. The cartoons of Raphael, at Hampton Court, furnish us with an example of genius and sagacity in this part of the art, too much to our present purpose to be omitted. We shall describe it in the words of Mr. Webbe. "When the inhabitants of Lystra are about to offer sacrifice to Paul and Barnabas, it was necessary to let us into the cause of all the motion and hurry before us; accordingly, the cripple whom they miraculously healed, appears in the crowd; observe the means which the painter has used to distinguish this object, and of course to open the subject of his piece. His crutches, now useless, are thrown to the ground; his attitude is that of one accustomed to such a support, and still doubtful of his limbs: the eagerness, the impetuosity with which he solicits his benefactors to accept the honours destined for them, point out his gratitude. and the occasion of it: during the time that he is thus busied, an elderly citizen, of some consequence, by his appearance, draws near, and lifting up the corner of his vest, surveys with astonishment the limb newly restored; whilst a man of middle age, and a youth, looking over the shoulder of the cripple, are intent on the same object. The wit of man could not devise means more certain of the end proposed; such a chain of circumstances is equal to a narration; and I cannot but think, that the whole would have been an example of invention and conduct, even in the happiest age of antiquity." The works of the first restorers of painting may be likewise studied with great

profit, so far as relates to invention, composition, and expression. In the executive parts of the art they seldom approach even mediocrity; less able therefore to gratify the eye, the artist applied himself exclusively to interest the mind of the spectator. Amongst the frescoes of Giotto, in the church of St. Francis, at Assisi, is one which, from the ingenuity of the invention, seems particularly to claim a place here; the subject is that of a wounded man, who, given over by his physician, is miraculously healed in a vision by St. Francis. The chief group of the picture represents the sick man, who, extended on his bed, is looking up with a stedfast countenance at the saint, who is laying his hand upon the wound. Two angels accompany St. Francis, one of whom holds a box of ointment. In another part of the picture the physician is represented about to go out of the room door, followed by a woman, evidently a sister or near relative of the wounded man, who with a taper in her hand, has been conducting him to the bedside. She is earnestly attentive to what the physician is saying to the father, who has been waiting for them at the outside of the door, and who shews by his gestures, which the tears of the young woman corroborate, that no hopes are given of his son's recovery.

In the two pictures last mentioned, the different figures admitted were essential to the perfect explanation of the story. Sometimes, however, a group, or figure, which although not necessary, shall nevertheless appear naturally, as it were, to grow out of the subject, may be introduced with great augmenta-

tion of the expression and effect of the piece. Such was the pathetic episode of Aristides, so repeatedly imitated in modern times by Poussin, and other painters.

Of Composition.

THE judicious disposal of the materials furnished by the imagination, or invention, in such a manner as best to contribute to the beauty, the expression, and the effect of the picture, constitute what is termed composition in painting.

The chief merit of composition may be said to consist in that arrangement, which wearing the appearance of mere chance, is, in fact, the most studied effect of art. A painter, therefore, is equally to avoid the dryness of those ancients who always planted their figures like so many couples in a procession, and the affectation of those moderns who jumble them together as if they were met merely to fight and squabble. In this branch Raphael was happy enough to choose the just medium, and attain perfection. The disposition of his figures is always exactly such as the subject requires.

Let the inferior figures of a piece be placed as they will, the principal figure should strike the eye most, and stand out, as it were, from among the rest: this may be effected various ways, as by placing it in the centre of the piece; by exhibiting it, in a manner, by itself; by making the principal light fall upon it; by giving it the most resplendent drapery, or, indeed, by several of these methods; nay, by all of them together: for, being the hero of the picturesque fable, it

is but just that it should draw the eye to itself, and stand forward the most conspicuous part of the subject.

It has been said, that painters should follow the example of comic writers, who compose their fables of as few persons as possible. Yet some pictures require a number of figures; on these occasions it depends entirely on the skill of the painter to dispose of them in such a manner, that the principal ones may always be obvious and distinct; he must take care that his piece be full, but not charged. In this respect, the battles of Alexander, by Le Brun, are master-pieces which can never be sufficiently studied; whereas nothing, on the other hand, can be more unhappy than the famous Paradise of Tinterot, which covers one entire side of the great council-chamber at Venice; for being badly composed, it appears a chaos, and fatigues the eye. In a sketch of this subject in the palace of Bavilaqua at Verona, he has succeeded much better; there the several choirs of martyrs, virgins, bishops, and other saints, are judiciously thrown into so many clusters parted here and there by a fine fleece of clouds, so as to exhibit the innumerable host of heaven; the whole composed in such a way as to form a very agreeable picture.

It were in vain, however, to prescribe any other general rule for the distribution of the figures in a picture, except such as is dictated by the peculiar circumstances and character of the story to be represented. Much has been said of the pyramidical group, the serpentine line, the artificial contrast, and upon doctrines like these, Lanfranco, Cortona, Gior-

dano, Maratti, and many others, their predecessors, as well as followers, formed a style better calculated to amuse the eye than to satisfy the judgment: an inordinate but ill directed thirst of variety is the basis of this artificial system; contrast is succeeded by contrast, opposition by opposition; but as this principle pervades all their works, the result is no variety at all, and their conduct may be compared to that of the voluptuary, who, grasping at every enjoyment which presents itself, acquires satiety instead of pleasure. Each subject, however different its character, is composed in a manner similar to the other, that the spectator may view a gallery of such pictures, seldom discovering the subjects they are intended to represent, and without being afterwards enabled to call to mind one prominent feature distinguishing the one from the other.

If Raphael can be said to have regulated his composition by any particular rule or maxim, it was that of making each as unlike the other as possible, consistent with propriety of expression. Thus in the cartoon of Christ giving the keys to Peter, the Apostles, all crowding together to be witnesses of the action, occupy the principal part of the picture, and form a group in profile, the Saviour, although in the corner of the picture, being nevertheless rendered evidently the principal figure, by the insulated situation given to him, as well as by the actions of the Apostles, who all press forward towards him, as to the centre of attraction. This cartoon is finely contrasted by the magnificent composition representing the death of Ananias, where the Apostles form a group in the

centre, and are all seen in front. That of Peter and John healing the cripple at the beautiful gate of the temple, is again strikingly different from either of its companions, Raphael having there, with a boldness of which any but a sublime genius would have been incapable, intersected his composition by the columns of the portico. But though divided, it is true, into separate and almost equal parts, neither the unity of aciton, nor the expression of the picture, is impaired, whilst the effect produced is at once novel and beautiful.

The reason of breaking a composition into several groupes is, that the eye, passing freely from one object to another, may the better comprehend the whole. But the painter is not to stop here; for these groupes are, besides to be so artfully put together, as to form rich clusters, give the whole composition an air of grandeur, and afford the spectator an opportunity of discerning the whole at a single glance. These effects are greatly promoted by a due regard to the nature of colours, so as not to place together these which are incongruous, or to distract by too great a variety. They should be so judiciously disposed as to temper and qualify each other.

Let the whole, in a word, and all the different parts of the composition, possess probability, grace, costume, and the particular character of what is represented. Let nothing look like uniformity of manner which does not appear less in the composition than it does in colouring, drapery, and design; and is, as it were, that kind ascent, by which painters may be as readily distinguished as foreigners are, by pronoun-

cing in the same manner all the different languages they happen to be acquainted with.

Of Design.

In the process of painting, design may properly be said to follow next after composition; for although this part of the art is, in a certain degree, requisite, even in making the first rough sketch, it is not until afterwards that the artist exerts his utmost powers to give that exact proportion, that beauty of contour, and that grace and dignity of action and deportment to his figures which constitute the perfection of design: that which was first only hinted at is now to be defined: a few rude and careless lines were sufficient in the sketch to indicate the general attitude and expression of the figure, now the utmost precision is required, not only in the outline of the naked parts, but even in the delineation of the most complicated windings of a lock of hair, or the intricate folds of a drapery. A very high degree of excellence in design, is perhaps justly considered the greatest difficulty of painting.

The progress of design, towards that perfection to which it was carried by the Grecian artists, was, like every other branch of the arts, slow and gradual; we are told by Pliny, that all the statues before the time of Dædalus, were represented stiff and motionless, with the feet closed, and arms hanging in right lines to their sides; or they had only the head finished; the body, arms, and legs not being expressed. These were the rude essays of design.

In the progress of the art, and in abler hands, motion was fashioned into grace, and life was heightened into

character; beauty of form was no longer confined to mere imitation, which always fall short of the object imitated; to make the copy equal in its effect, it was necessary to give it an advantage over its model; the artists, therefore, observing that nature was sparing of her perfections, and that her efforts were limited to parts, availed themselves of her inequalities, and drawing those scattered beauties into a more happy and complete union, rose from an imperfect imitation, to a perfect ideal beauty. We are informed that the painters of Greece, pressed in crowds to design the bosom and breast of Thais; nor were the elegant proportions of Phryne less the object of their study: by this constant contemplation of the beautiful, they enriched their imagination, and confirmed their taste; from this fund they drew their systems of beauty; and though we should consider them but as imitators of the parts, we must allow them to have been the inventors in the compositions.

Should we doubt the justice of the preference given to invented beauty, over the real, we need only contemplate the fine proportions, and the style of drawing in the Laocoon and Gladiator, and mark the expressive energy of Apollo, and the elegant beauties of the Venus de Medicis. These are the utmost efforts of design; it can reach no farther than a full exertion of grace, beauty, and character.

The design of the ancients is distinguished by an union of proportions, a simplicity of contour, and an excellence of character.

There is no one excellence of design from which we derive such immediate pleasure, as from gracefulness

of action: if we observe the attitudes and movements of the Greek statues, we shall mark that careless decency, and unaffected grace, which ever attend the motions of men unconscious of observation.

Raphael has been wonderfully happy in imitating this simple elegance of the antique; the most courtly imagination cannot represent to itself an image of more winning grace than is to be seen in his Sancta Cæcila. Indeed, an elegant simplicity is the characteristic of his design; we no where meet in him the affected contrasts of Michael Angelo, or the studied attitudes of Guido.

The design of Raphael was, in its beginning, dry, but correct; he enlarged it much on seeing the drawings of Michael Angelo: of too just an eye to give entirely into the excesses of his model, he struck out a middle style, which, however, was not so happily blended, as quite to throw off the influence of the extremes: hence, in the great he is apt to swell into the charged; in the delicate to drop into the little: his design, notwithstanding, is beautiful; but never arrived to that perfection which we discover in the Greek statues.

He is excellent in the characters of philosophers, apostles, and the like; but the figures of his women have not that elegance which is distinguished in the Venus de Medicis, of the daughter of Niobe; in these, his convex contours have a certain heaviness, which, in seeking to avoid he falls into a dryness still less pardonable. His proportions are esteemed excellent, yet not having formed his manner on the most beautiful antique, we do not see in him that elegant symmetry that freedom in the joints which lend all their motion

to the Laocoon and Gladiator! instead of these, the figures of Michael Angelo were his models in the great style; whence, having quitted the lines of nature, and not having substituted ideal beauty, he became too like his original, as may be seen in his Incendio di Borgo. Would we therefore place Raphael in his true point of view, we must observe him in the middle age; in old men, or in the nervous nature: in his Madonas, he knew how to choose, as likewise how to vary the most beautiful parts of nature; but he knew not how to express a beauty superior to the natural.

Thus in his Galatea, where he has attempted a character of perfect beauty, he has fallen short of the beauty of his Madonas: the cause of this seems to be, that he drew the former after his own ideas, which were imprefect: in the latter he copied beautiful nature, which was almost perfect: a second observation wil confirm this opinion: of all the objects of painting, Angels call most for ideal beauty! and those of Raphael are by no means distinguished in this particular.

One of the greatest excellencies of design, is grace. Corregio in this is inimitable. His constant aim was grace, and a happy effect of light and shade. A waving and varied contour was necessary to this end, hence he studiously avoided right lines, and acute angles as too simple in their effects. Thus the habit and necessity of continually varying his outline, threw him into little errors in drawing, which spring not from an ignorance of this branch of his art; but from a predilection for another; and there are few who would wish those inadvertencies away, accompanied with the charms which gave occasion to them.

We may affirm of this design, where it is not sacrificed to his more favorite aims, that it is often masterly, and always pleasing; a quality rarely to be met with in those servile painters, who think they have attained every perfection, if they keep within the rules of drawings. Such painters (says Quintilian) while they think it sufficient to be free from faults, fall into that capital one, the want of beauties.

The most perfect knowledge of form, however, only constitutes a part of that branch of painting which we term design: the art of fore-shortening, by which a limb, or a figure, although only occupying a diminished space on the canvas, is rendered, in appearance, of its full length and magnitude, is an equally indispensable object of the artist's attainment. The sculptor, when he has chisseled or modelled the form of his figure or group, with its just proportions, has completed his work, which is rather the simple transcript than the imitation of the image previously formed in his mind: his art is undisguised, and without illusion: it presents as well to our touch as to our sight, the bodies and shapes of things without the colour. The distinguishing prerogative of painting, on the other hand, and that from which arises its decided advantage over every other artificial mode of representation, is its power to give upon a limited plane the appearance of boundless space. An insight into the science of perspective, and the doctrines of lights and shadows, is indispensable ere the student can hope to acquire the art of fore-shortening his figures with correctness: an art in which the great Michael Angelo has evinced such consummate skill in his frescoes in

the Sestine Chapel at Rome, that they can never be sufficiently contemplated. The works of Corregio, and in particular his two cupolas at Parma, may likewise be studied with advantage, and sufficiently prove that even the boldest fore-shortenings may on many occasions be resorted to without detriment to the beauty, the grace, or expression of the figures. In the execution of these, and most of his chief works, however, he was greatly assisted by his friend Antonio Begarelli, a celebrated Modenese sculptor, who modelled for him in clay all the figures, so that Corregio, by placing and grouping them together as they were to be represented, was enabled to delineate, with the greatest correctness, every fore-shortening, and at the same time to acquire a truth and boldness of light and shade unattained by any other means. And here it may be well to observe, that the trouble of preparing such models in the first instance, is amply repaid by the great facility, or rather certainty, which it gives, the artist in the execution of his work. Moreover, the painter having his modelled figures before him, and being enabled, by varying the situation of his eye, to view them in every direction, will frequently discover beautiful combinations which he never dreamed of at the same time that he is rendered less liable to the error of too often repeating the same view of a figure, or the same action, and is taught to avoid a common place mode of composition.

We shall close this article with an account of the Apollo Belvidere, and the celebrated groupe of Laocoon, so long the pride of Rome, but removed to Paris du-

ring its ravages by the French republicans, as described by the late Abbe Winckleham:

THE APOLLO BELVIDERE.

"Of all the productions of art, which have escaped the ravages of time, the statue of Apollo Belvidere is unquestionably the most sublime. The artist founded this work upon imagination, and has only employed substance for the purpose of realizing his ideas. As much as the descriptions which Homer has given of Apollo are superior to those given of him by other poets, in the same degree is this statue superior to any other statues of that deity. Its stature is above that of man, and its attitude breathes majesty. An eternal spring, such as reigns in the delightful fields of Elysium, clothes with youth the manly charms of his body, and gives a brilliancy to the animated structure of his limbs.

"Endeavour to penetrate into the regions of incorporeal beauty; try to become the creator of a celestial nature in order to elevate your soul to the contemplation of supernatural beauties; for here there is nothing mortal: neither the veins nor sinews are too conspicuous: a kind of celestial spirit animates the whole figure. The God has pursued Python, against whom he has for the first time, bent his dreadful bow: in his rapid course he has overtaken him, and given him a mortal blow. In the height of his joy, his august features denote more than victory. Disdain is seated on his lips, and the indignation which he breathes distends his nostrils, and affects his eye-brows: but still his forehead expresses serenity, and he is all full of sweet-

ness, as if he were surrounded by the Muses, eager to caress him.

"Among all the figures of Jupiter which we possess you will not see one in which the Father of the Gods displays so much of that majesty described by the poets, as does the statue of his son. The peculiar beauties of all the other Gods are united in this figure, in the same manner as in the divine Pandora. The forehead is the forehead of Jupiter, impregnated with the Goddess of Wisdom; his eye-brows, by their movement, declare their wishes; his eyes in their celestial orbits, are the eyes of the Queen of the Goddesses; and the mouth is that which inspired the beautiful Bacchus with voluptuousness. Like the tender branches of the vine, his fine hairs play about as if they were slightly ruffled by the breath of zephyrs; they seemed perfumed with celestial essence, and negligently tied by the hands of the Graces.

"On seeing this prodigy of art, I forgot the whole universe; I placed myself in a more noble attitude to contemplate it with dignity. From admiration I passed to extacy; filled with respect, I felt my breast agitated like those who are inspired with the spirit of prophecy.

"I felt myself transported to Delas and the sacred woods of Lycia, places which Apollo honoured with his presence; for the beauty which was before my eyes appeared to be animated, as formerly the beautiful statue produced by the chizel of Pygmalion. How can I describe you, oh, inimitable *chef d'œuvre!* Art itself must inspire me and guide my pen.

"The outlines which I have traced I lay at your feet;

so those who cannot reach to the head of the deity they adore, place at his feet the garlands with which they wish to crown him."

THE GROUPE OF LAOCOON.

"Laocoon presents to us a picture of the deepest distress, under the representation of a man, contending with all his powers in his own defence, while his muscles and sinews are dilated and contracted by agony you may still perceive the vigour of his mind expressed on his wrinkled forehead. His breast oppressed with restrained respiration, seems to contend against the pain with which it is agitated.

"The groans which he restrains, and his breath, which he holds in, seems to exhaust the lower part of his body, and the loins, by being drawn in, seem to discover his very entrails. Nevertheless, his own sufferings seem to affect him less than those of his children who look up to him as if imploring his succour. Compassion, like a dark vapour, overshadows his eyes. His physiognomy denotes complaint, his eyes are directed towards heaven, imploring assistance. His mouth bespeaks langour, and his lower lip is fallen. Agony mixed with indignation at his unjust punishment, is displayed in all his features.

"The contest between pain and resistance is displayed with greatest skill; for while the former draws up the eye-brows, the latter compresses the flesh over the eyes, and makes it descend over the upper eye-lids. The subject not allowing the artist to embellish nature, he has exerted himself to display contension and vigour. In those places where there is the greatest agony, there

is also great beauty. The left side, on which the furious serpent makes its attack, seems to be in the greatest pain from its proximity to the heart. This part of the body may be called a prodigy of art. Laocoon wishes to raise his legs in order to escape. No part of the figure is in repose. The very flesh, by the skill of the artist, has the appearance of being benumbed.

Expression of the Passions.

That language which, above all others, a painter should carefully endeavour to learn, and from nature herself, is the language of the passions. Without it, the finest work must appear lifeless and inanimate. It is not enough for a painter to be able to delineate the most exuqisite forms, and give them the most graceful attitudes; it is not enough to dress them out with propriety, and in the most beautiful colours; it is not enough, in fine, by the powerful magic of light and shade to make the canvass varnish; he must likewise know how to cloathe his figures with grief, with joy, with fear, with anger; he must, in some sort, write on their faces, what they think, and what they feel; he must give them life and speech. It is, indeed, in this branch, that painting truly soars, and, in a manner rises superior to herself; it is in this she makes the spectator apprehend much more than what she expresses.

Many have written, and, amongst the rest, the famous Lavater, on the changes, that, according to various passions, happen in the muscles of the face, which is, as it were, a mirror of the soul. They observe for example, that in fits of anger, the face red-

dens, the muscles of the lips puff up, the eyes sparkle; and that, on the contrary, in fits of melancholy, the eyes grow motionless and dead, the face pale and the lips sink in. It is necessary the painter who would be thoroughly acquainted with this principal part of his profession should study, with care, the learned and ingenious treatise of the author abovementioned; but for the young student, the short work of Le Brun, written for the pupils of the French academy of painting, will be more intelligible; but it will be of infinitely more service to study them in nature itself, from whence they have been borrowed, and which exhibits them in that lively manner which neither tongue nor pen can express.

But if a painter is to have immediate recourse to nature in any thing, it is particularly in treating those very minute and almost imperceptible differences, by which, however, things very different from each other are often expressed. This is particularly the case with regard to the passions of laughing and crying, as in these, however contrary, the muscles of the face operate nearly in the same manner.

According to Lionardo da Vinci, the best masters that painters can have recourse to in this branch, are those dumb men who have found out the method of expressing their sentiments by the motion of their hands, eyes, eye-brows, and, in short, every other part of the body. This advice, no doubt, is very good but then such gestures must be imitated with great sobriety and moderation, least they should appear too strong and exaggerated, and instead of character, the copy should degenerate into affectation and caricatura.

Almost incredible things are told of the ancient painters of Greece in regard to expression, especially of Aristides, who, in a picture of his, representing a woman wounded to death at a siege, with a child crawling to her breast, makes her appear afraid, least the child, when she was dead, should, for want of milk, suck her blood. A Medea, murdering her children, by Timomachus, was likewise much praised, as the ingenious artist contrived to express, at once, in her countenance, both the fury that hurried her on to the commission of so great a crime, and the tenderness of a mother that seemed to withhold her from it. Reubens attempted to express such a double effect in the face of Mary of Medicis, still in pain from her past labour, and, at the same time, full of joy at the birth of a Dauphin. And in the countenance of Sancta Polonia, painted by Tiepolo, for St. Anthony's church at Padua, is clearly read a mixture of pain from the wound given her by the executioner, and of the pleasure from the prospect of Paradise opening to her by it.

Few, to say the truth, are the examples of strong expression afforded by the Venetian, Flemish, or Lombard schools. Deprived the advantage of contemplating at leisure the works of the ancients, the purest sources of perfection in point of design, expression and character, and having nothing but nature constantly before their eyes, they made strength of colouring, blooming complexions, and the grand effects of the chiaro scuro their principal study; they aimed more at charming the senses, than captivating the understanding.

The Venetians, in particular, seemed to have placed

their whole glory in setting off their pieces with all that rich variety of personages and dress, which their capital was continually receiving by means of its extensive commerce, and which attracted so much the eyes of all those who visited it. It is doubtful, if, in all the pictures of Paolo Veronese, there is to be found a bold and judicious expression, or one of those attitudes, which, as Petrarch expresses it, speak without words; unless, perhaps, it be that remarkable one in his Marriage-feast at Cana of Galilee. At one end of the table, and directly opposite to the bridegroom, whose eyes are fixed upon her, there appears a woman in red, holding up to him the skirt of her garment, as much as to say, that the wine miraculously produced was exactly the colour of her drapery; and, in fact, it is red wine we see in the cup and vessels. But all this while the faces and attitudes of most of the company betray not the least sign of wonder, at so extraordinary a miracle. They all, in a manner, appear intent upon nothing but eating, drinking, and making merry. Such, in general, is the style of the Venetian school. The Florentine, over which Michael Angelo presided, above all things curious of design, was most scrupulously exact in point of anatomy. On this she set her heart, and took singular pleasure in displaying it. Not only elegance of form, and nobleness of invention, but likewise strength of expression, triumphed in the Roman school, nursed as it were, amongst the works of the Greeks, and in the bosom of a city which had once been the seminary of learning and politeness. Here it was that Domenichino and Poussin, both great masters of expression, refined their ideas, as appears

more particularly by the St. Jerome of the one, and by the death of Germanicus, or the slaughter of the Innocents, by the other. Here it was that Raphael arose, the sovereign master of them all. There is not indeed a single picture of Raphael's, from the study of which, those who are curious in the point of expression, may not reap great benefit, particularly his Martyrdom of St. Felicitas; his Magdalen in the house of the Pharisee; his Transfiguration; his Joseph explaining to Pharaoh his dream, a piece so highly rated by Poussin. His School of Athens, in the Vatican, is to all intents and purposes, a school of expression. Among the many miracles of art with which this piece abounds, we shall single out that of the four boys attending on a Mathematician, who, stooping to the ground, his compasses in his hand, is giving them the demonstration of a theorem. One of the boys recollected within himself, keeps back, with all appearance of profound attention to the reasoning of the master; another, by the briskness of his attitude, discovers a greater quickness of apprehension; while the third, who has already seized the conclusion, is endeavouring to explain it to the fourth, who, standing motionless with open arms, a staring countenance, and an unspeakable air of stupidity in his looks, will never, perhaps, be able to make any thing of the matter. And it is probably from this very groupe that Albano, who studied Raphael so closely, drew the following precept of his:—"That it behoves a painter to express more circumstances than one by every attitude, and so to employ his figures, that, by barely seeing what they are actually about one may be able

to guess, both what the have been already doing, and are next going to do." This is a difficult precept; but it is only by a due observance of it, the eye and the mind can be made to hang in suspense on a painted piece of canvass. It is expression, that a painter, ambitious to soar in his profession, must, above all things labour to perfect himself in. It is in expression that dumb poetry consists, and what the prince of our poets calls a visible language.

Of Clair obscure, or Chiaro-scuro.

Clair obscure, or chiaro-scuro, is the art of distributing tho lights and darks in a picture, in such a manner as to give at once proper relief to the figures, the best effect to the whole composition, and the greatest delight to the eye. We have said the lights and darks in a picture, because the word chairo-scuro, properly speaking, denotes not only light and shade, but light and dark of what kind soever, and in this sense it is nearly allied to colouring, if not indeed inseparable from it. A thorough conception and knowledge of the chairo-scuro is of the greatest importance to a painter, as it is chiefly by the proper application of this branch of the art, that he is enabled to make the various objects in his picture appear to project or recede, according to their relative situations or distances; and thus far, indeed the principles of it are necessary to the artist, ere he can hope to render his imitation just or intelligible. But it is required in works of fine art, not only that truth should be told, or that beauty should be represented, but likewise that the one and the other should be made appear to every

possible advantage; it has, therefore, ever been the study of great painters, not only to give the due appearance of roundness or projection to the objects in their pictures, by proper lights and shadows; but likewise to unite or contrast the masses of light and dark in such a manner as to give at once the most forcible impression to the imagination, and the most pleasing effect to the eye.

Leonardo da Vinci was the first artist of modern times who treated the subject of chiaro-scuro scientifically; but although he gave great force and softness to his pictures, yet the system which he recommended, and generally adopted, of relieving the dark side of the figures by a light back ground, and the light parts by a dark one, prevented that expansion and breadth of effect which Corregio soon after discovered, could only be attained by a contrary mode of conduct, that of relieving one shadow by another still darker, and of uniting several light objects into one great mass. The figures, as well as the other objects in the pictures of Corregio, are at all times so disposed as naturally to receive the light exactly in those parts where it is most wanted, and best suits the effect of the whole, and yet this is done so skilfully, that neither propriety nor grace of action seems in any respect to be sacrificed in the astonishing combination.

The principal painters of the Venetian school, Giorgione, Titian, Bassan, Tintorit, and Paulo Veronese, were masters of effect; but with them this effect is more frequently the result of accordance or opposition of the local colours of the different objects composing their pictures, than of any very studied or skilful dis-

position of the masses of light and shadow. Reubens the great genius of the Flemish school, united the wide expansive effect of Corregio, the richly contrasted tints of the Venetians, and the force of Carravaggio, and has only left us to regret that his magnificent and bold inventions were not designed with the purity of Raphael, or the correctness of Buonaroti. From the scanty introduction of light in the works of Rembrandt we might be led to suppose that this surprising artist considered the illumined parts of his pictures as gems, acquiring increased lustre from their rarity; whilst the striking effects he has thereby produced, happily teaches us, how vain the attempt to limit or restrain by rules the workings of genius in the human mind. From an attentive study of the works of these great masters, the student will derive the true principles of chiaro-scuro, and be the better qualified to seize and avail himself of those transient, but beautiful effects, which nature, the great master of all, every day presents to his eyes. It remains for us to say a few words on colouring.

Of Colouring.

COLOURING is the art of giving to every object in a picture its true and proper hue, as it appears under all the various circumstances or combinations of light, middle-tint and shadow; and of so blending and contrasting the colours, as to make each appear with the greatest advantage and beauty, at the same time that it contributes to the richness, the brilliancy, and the harmony of the whole. "Should the most able master in design," says Mr. Webbe, "attempt, by that alone, a rose or grape, we should have but a faint and

imperfect image; let him add to each its proper colours, we no longer doubt, we smell the rose, we touch the grape."

Colouring, though a subject greatly inferior to many others which the painter must study, is yet of sufficient importance to employ a considerable share of his attention; and, to excel in it, he must be well acquainted with that part of optics which has the nature of light and colours for its object. Light, however simple and uncompounded it may appear, is nevertheless made up, as it were, of several distinct substances; and the number, and quantity of component parts, has been happily discovered by the moderns. Every undivided ray, let it be ever so fine, is a little bundle of blue, red, and yellow rays, which, while combined, are not to be distinguished one from another, and form that kind of light, called *white*; so that white is not a colour *per se*, as the learned De Vinci (so far, it seems, the precursor of Newton) expressly affirms, but an assemblage of colours. Now, these colours, which compose light, although immutable in themselves, and endued with various qualities, are continually, however, separating from each other in their reflection from, and passage through other substances, and thus become manifest to the eye. Grass, for example, reflects only green rays, or rather reflects green rays in greater number than it does those of any other colour; one kind of wine transmits red rays, and another yellowish rays; and from this kind of separation arises that variety of colours with which nature has diversified her various productions. Man, too, has contrived to separate the rays of light, by making a portion of the sun's

beams pass through a glass prism; for after passing through it, they appear divided into three pure and primitive colours, placed in succession one by the other, like so many colours on a painter's pallet.

Although a knowledge of the science of optics may be of great service to a painter, yet the pictures of the best colourists are, it is universally allowed, the books in which a young painter most chiefly look for the rules of colouring; that is, of that branch of painting which contributes so much to express the beauty of objects, and is so requisite to represent them as what they really are. Giorgione and Titian seem to have discovered circumstances in nature which others have entirely overlooked; and the last in particular has been happy enough to express them with a pencil as delicate as his eye was quick and piercing. In his works we behold that sweetness of colouring which is produced by union; that beauty which is consistent with truth; and all the insensible transmutations, all the soft transitions, in a word all the pleasing modulations of tints and colours. When a young painter has, by close application, acquired from Titian, whom he can never sufficiently dwell upon, that art which, of all painters, he has best contrived to hide, he would do well to turn to Bassano and Paolo, on account of the beauty, boldness, and elegance of their touches. That richness, softness, and freshness of colouring, for which the Lombard school is so justly celebrated, may likewise be of great service to him; nor will he reap less benefit by studying the principles and practice of the Flemish school, which, chiefly by means of her varnishes, has contrived to give a most enchanting lustre and transparency to her colours.

But from whatever pictures a young painter may choose to study the art of colouring, he must take great care that they are well preserved. There are very few pieces which have not suffered more or less by the length, not to say the injuries, of time; and perhaps that precious *patina*, which years alone can impart to paintings, is in some measure akin to that other kind which ages alone can impart to medals; inasmuch as, by giving testimony to their antiquity, it renders them proportionably beautiful in the superstitious eyes of the learned. It must, indeed, be allowed, that if on the one hand, this patina bestows, as it really does, an extraordinary degree of harmony upon the colours of a picture, and destroys, or at least greatly lessens, their original rawness, it, on the other hand, equally impairs the freshness and life of them. A piece seen many years after it has been painted, appears much as it would do, immediately after painting, behind a dull glass. It is no idle opinion, that Paolo Veronese, attentive above all things to the beauty of his colours, and what is called *strepito*, left entirely to time the care of harmonizing them perfectly, and, (as we may say) mellowing them. But most of the old masters took that task upon themselves; and never exposed their works to the eyes of the public until they had ripened and finished them with their own hands. And who can say whether the *Christ* of Moneta, or the *Nativity* of Bassona, have been more improved or injured (if we may so speak) by the touchings and retouchings of time, in the course of more than two centuries? It is indeed impossible to be determined; but the studious pupil may make himself

ample amends for any injuries which his originals may have received from the hands of time, by turning to truth, and to nature, which never grows old, but constantly retains its primitive flower of youth, and was itself the model of the models before him. As soon, therefore, as a young painter has laid a proper foundation for good colouring, by studying the best masters, he should turn all his thoughts to truth and nature. And it would perhaps be well worth while to have, in the academies of painting, models for colouring as well as designing; that is from the one the pupils learn to give their due proportion to the several members and muscles, they may learn from the other to make their carnations rich and warm, and faithfully copy the different local hues which appear quite distinct in the different parts of a fine body. To illustrate still farther the use of such a model, let us suppose it placed in different lights; now in that of the sun, now in that of the sky, and now again in that of a lamp or candle; one time placed in the shade, and another in a reflected light: hence the pupil may learn all the different effects of the complexion in different circumstances, whether the livid, the lucid, or transparent; and, above all that variety of tints and half-tints, occasioned in the colour of the skin by the *epidermis* having the bones immediately under it in some places, and in others a greater or less number of blood-vessels or quantity of fat. An artist who had long studied such a model, would run no risk of degrading the beauties of nature by any particularity of stile, or of giving into that preposterous fulness and floridness of colouring, which is at present so much the taste; he would not feed his figures with

roses, as an ancient painter of Greece shrewdly expressed it. What statues are in design, nature is in colouring; the fountain head of that perfection to which every artist, ambitious to excel, should constantly aspire: and, accordingly, the Flemish painters, in consequence of their aiming solely to copy nature, are in colouring as excellent as they are commonly aukward in designing. A good model for the tone of colours, and the gradation of shades, is furnished by means of the *camera obscura.*

We may form a general idea of the various effects of reflections from the following examples: If a blue be reflected on a yellow, the latter becomes greenish; if on a red, the red becomes purple; and so on through a variety of combinations. As the white is of a nature to receive all the colours, and to be tinged with that of each reflection, the painter must be careful how his carnations may be affected by the several reflections.

Conclusion.

In the present enquiry it has been our chief aim to enforce such arguments as are calculated to draw the attention of the reader to the legitimate end of the art; that, whilst the eye is charmed with beautiful forms, the magic of chiaro-scuro, and the richness and harmony of colours, the due expression of the subject of a piece may be attained, it were folly to deny: this union, indeed, constitutes the perfection of painting, which should convey, like fine writing, truths to the mind in language at once the most forcible and beautiful; but an attempt to point out the means by which this delight may be conveyed to the sight, would ne-

cessarily require a minute investigation of all the different modes which it is in the power of the painter to adopt in the executive departments of his art; and consequently lead us, with perhaps, after all, little prospect of success, far beyond the limits we are obliged to prescribe to ourselves.

Simplicity with variety, inequality of parts, with union in the whole, are, perhaps, the basis of all those effects in painting which give pleasure to the sight. As in a composition one group, or one figure, should strike the eye with superiority over the secondary groups, or other objects in the picture; so there should be in a picture one principal mass of light, which, however connected with others, should still predominate; and for the same reason no two colours should have equal sway in the same picture: as we are at liberty to give the chief group or figure of the composition that situation which we judge most appropriate; so there is no rule by which we are obliged to place the principal light in any one given part of the picture. In clair-obscure, an inequality of parts, a subordination of several small masses to one large one, never fails to produce richness and beauty of effect; and thus, in composition, a similar richness and beauty are the result of an opposition of several small bodies or parts, to one large and simple; and in the same manner from an arrangement of several small masses of colour in the vicinity of one large mass, the latter seems enriched, and to acquire additional consequence and beauty.

As by the addition of smaller masses of light, connected with the principal mass, that mass acquires at once greater breadth and influence, so the unity of ac-

tion in a composition is in many cases powerfully augmented by a repetition of nearly the same action in two or three of the accessorial figures arranged together, one nevertheless being principal: this was the frequent custom of Raphael, has its foundation in nature, where similar sentiments most frequently excite similar outward demonstrations, and never fails, if judiciously managed, to produce its effect.

The doctrine of contrasts is equally applicable to composition, to clair-obscura, and to colouring. As in composition, the too frequent contrast of lines, or of back to front figures, is destructive of simplicity and force of expression: so the inordinate and frequent introduction of strong oppositions of lights and shadows, or of colours, produces a spotty and confused appearance, wholly subversive of breadth and grandeur of effect: the moderate and judicious use of contrasts is of the greatest use; it gives a zest to the picture, and is like the discord in music, which sheds additional sweetness on the full harmony which succeeds it.

It will be easily perceived, that to accomplish all these objects, is by no means an easy task.

In some an inclination to pursue the arts appears at a very early period of life, and it is often difficult to ascertain the circumstance which gave that particular impulse to the mind; though there must always be some accidental circumstance, not depending upon ourselves, that creates in us that desire.

When a boy is possessed of good talents, and has so strong a passion for the arts, that scarcely any thing can restrain him, there can be little fear of his doing well, if suffered to follow the bent of his inclination;

but without this, nothing should induce him to engage in a profession of so arduous a nature, and which requires such unwearied application. He may learn to draw the correct outlines of buildings, and other regular objects, by the rules of perspective; but the forming fine pictures, so as to affect the mind, is an art not reducible to rule, and though much may be taught, yet much more will ever depend upon the mind of the artist. Here it is that the existence of a quality which distinguishes one man from another, is so obvious. This has been denominated by various appellations, none of which are capable of being correctly defined. It has been called *genius*, *taste*, *soul*, *mind*, and a variety of other terms, all of which are indefinite, and prove that we know but little of our own nature. Some even deny the existence of this distinction altogether, and maintain that men are mere machines, acted upon only by external circumstances, and capable of being trained to any purpose.

It will be foreign to our purpose to enter into any discussion on this subject; but we shall add a passage relating to it, from the Lectures of the late Sir Joshua Reynolds. "There is one precept," he observes, "in which I shall be opposed only by the vain, the ignorant, and the idle. I am not afraid that I shall repeat it too often. You must have no dependance on your own genius. If you have great talents, industry will improve them; if you have moderate abilities, industry will supply their deficiency. Nothing is denied to well-directed labour; nothing is to be obtained without it. Not to enter into metaphysical discussions on the nature or essence of genius, I will venture to as-

sert, that assiduity, unabated by difficulties, and a disposition eagerly directed to the object of its pursuit, will produce effects similar to those which some call the result of *natural powers*. Though a man cannot at all times, and in all places, paint or draw, yet the mind can prepare itself by laying in proper materials, at all times and in all places.

"I cannot help imagining that I see a promising young painter, equally vigilant, whether at home or abroad, in the streets or in the fields. Every object that presents itself is to him a lesson. He regards all nature with a view to his profession, and combines her beauties, or corrects her defects. He examines the countenances of men under the influence of passion, and often catches the most pleasing hints from subjects of turbulence or deformity. Even bad pictures themselves supply him with useful documents; and as Leonardo de Vinci has observed, he improves upon the fanciful images that are sometimes seen in the fire, or are accidentally sketched upon a discoloured wall.

"The artist who has his mind thus filled with ideas, and his hand made expert by practice, works with ease and readiness: whilst he who would have you believe that he is waiting for the inspirations of genius, is in reality at a loss how to begin, and is at last delivered of his monsters with difficulty and pain.

"What then," exclaims the inimitable Gessner, who possessed such true feeling for the sublimer parts of the art, "must be the fate of those who do not join an inflexible labour to an habitual meditation? Let the artist who despises or neglects these important means

make no pretension to the recompence due to active and sensible minds. There is no reputation for him, to whom a taste for his art does not become his ruling passion; to whom the hours he employs in its cultivation, are not the most delicious of his life; to whom the study of it does not constitute his real existence and his primary happiness; to whom the society of artists is not, of all others, the most pleasing; to him whose watchings, or dreams in the night, are not occupied with the ideas of his art; who in the morning does not fly with fresh transport to his painting-room. But, of all others, unhappy is he who descends to flatter the corrupt taste of the age in which he lives, who delights himself with applauded trifles, who does not labour for true glory, and the admiration of posterity. Never will he be admired by it; his name will never be repeated; his works will never fire the imagination, nor touch the heart of those fortunate mortals who cherish the arts, who honour their favorites, and search after their works."

OF THE DIFFERENT CLASSES OF PAINTING.

As all the objects in nature are susceptible of imitation by the pencil, the masters of this art have applied themselves to different subjects, each one as his talents, his taste, or inclination, may have led him.—From whence have risen the following classes.

I. *History-painting:* which represents the principal events in history, sacred and profane, real or fabulous; and to this class belongs *allegorical expression.* These are the most sublime productions of the art; and in which Raphael, Guido, Reubens, Le Brun, &c. have excelled.

II. *Rural-history;* or the representation of a country life, of villages and hamlets, and their inhabitants. This is an inferior class; and in which Teniers, Breughel, Watteau, &c. have great reputation, by rendering it at once pleasing and graceful.

III. *Portrait-painting;* which is an admirable branch of this art, and has engaged the attention of the greatest masters in all ages, as Apelles, Guido, Vandyke, Rembrandt, Regauds, Pesne, Kneller, La Tour, &c.

IV. *Grotesque histories;* as the nocturnal meetings of witches; sorceries and incantations; the operations of mountebanks, &c. a sort of painting in which the younger Breughel, Teniers, and others, have exercised their talents with success.

V. *Battle-pieces;* by which Huchtemberg, Wouverman, &c. have rendered themselves famous.

VI. *Landscapes;* a charming species of painting, that has been treated by masters of the greatest genius in every nation.

VII. *Landscapes diversified with waters,* as rivers, lakes, cataracts, &c.; which require a peculiar talent, to express the water sometimes smooth and tranparent, and at others foaming and rushing furiously along.

VIII. *Sea-pieces;* in which are represented the ocean, harbours, and great rivers; and the vessels, boats, barges, &c. with which they are covered; sometimes in a calm, sometimes in a fresh breeze, and at others in a storm. In this class Backhuysen, Vandervelde, Blome, and many others have acquired great reputation.

IX. *Night-pieces;* which represent all sorts of objects, either as illuminated by torches, by the flames of a conflagration, or by the light of the moon. Schalck, Vanderneer, Vanderpool, &c. have here excelled.

X. *Living Animals:* A more difficult branch of painting than is commonly imagined; and in which Rosa, Carré, Vandervelde, and many others, have succeeded marvellously well.

XI. *Birds of all kinds;* a very laborious species, and which requires extreme patience minutely to express the infinite variety and delicacy of their plumage.

XII. *Culinary pieces;* which represent all sorts of provisions, and animals without life, &c. A species much inferior to the rest, in which nature never appears to advantage, and which requires only a servile imitation of objects that are but little pleasing. The painting of fishes is naturally referred to this class.

XIII. *Fruit pieces*, of every kind, imitated from nature.

XIV. *Flower pieces;* a charming class of painting; where Art in the hands of Huyzam, P. Segerts, Merian, &c. becomes the rival of Nature. *Plants* and *insects* are usually referred to the painters of flowers, who with them ornament their works.

XV. *Pieces of architecture;* a kind of painting in which the Italians excel all others. Under this class may be comprehended the representations of ruins, sea-ports, streets, and public places; such as are seen in the works of Caneletti, and other able masters.

XVI. *Instruments of music, pieces of furniture*, and other inanimate objects; a trifling species, and in which able painters only accidentally employ their talents.

XVII. *Imitations of bas-reliefs;* a very pleasing kind of painting, and which may be carried by an able hand to a high degree of excellence.

XVIII. *Hunting pieces:* these also require a peculiar talent, as they unite the painting of men, horses, dogs, and game, to that of landscapes.

It will not be expected that we should here give the rules that the painter is to observe in handling each particular object. These must be learned from the study of the art itself. Good masters, academies of reputation, and a rational practice, are the sources from whence the young painter must derive the detail of his art. We shall however, in addition to those which have been given under drawing, insert some rules and observations relative to *Landscape and Portrait*; these with *History painting*, (the rules for which may be

gathered from the general principle already laid down,) forming the principal branch of the art.

OF LANDSCAPE PAINTING.

LANDSCAPE-painting includes every object that the country presents: and is distinguished into the *heroic*, and the *pastoral* or *rural;* of which indeed all other styles are but mixtures.

The *heroic style* is a composition of objects, which in their kinds draw both from art and nature, every thing that is great and extraordinary in either. The situations are perfectly agreeable and surprising. The only buildings are temples, pyramids, ancient places of burial, alters consecrated to the divinities, pleasure-houses of regular architecture; and if nature appear not there as we every day casually see her, she is at least represented as we think she out to be. This style is an agreeable illusion, and a sort of enchantment, when handled by a man of fine genius and a good understanding, as Poussin was, who has so happily expressed it. But if, in the course of this stile, the painter has not talent enough to maintain the sublime, he is often in danger of falling into the childish manner.

The *rural style* is a representation of countries, rather abandoned to the caprice of nature, than cultivated: we there see nature simple, without ornament, and without artifice; but with all those graces wherewith she adorns herself much more when left to herself than when constrained by art.

In this style, situations bear all sort of varieties: sometimes they are very extensive and open, to contain the flocks of the shepherds; at others very wild, for the retreat of solitary persons, and a cover for wild beasts.

It rarely happens that a painter has a genius extensive enough to embrace all the parts of painting: there is commonly some one part which pre-engages our choice, and so fills our mind, that we forget the pains that are due to the other parts; and we seldom fail to see, that those whose inclination leads them to the heroic style, think they have done all, when they have introduced into their compositions such noble objects as will raise the imagination, without ever giving themselves the trouble to study the effects of good colouring. Those, on the other hand, who practise the pastoral, apply closely to colouring, in order to represent truth more lively. Both these styles have their sectaries and partizans. Those who follow the heroic, supply by their imagination what it wants of truth, and they look no farther.

As a counterbalance to heroic landscape, it would be proper to put into the pastoral, besides a great character of truth, some affecting, extraordinary, but probable effect of nature, as was Titian's custom.

There is an infinity of pieces wherein both these styles happily meet; and which of the two has the ascendant, will appear from what we have been just observing of their respective properties. The chief parts of landscapes are, their openings or situations, accidents, skies and clouds, offskips and mountains, verdure or turfing, rocks, grounds, or lands, terraces,

fabrics, waters, fore-grounds, plants, figures, and trees; of all which in their places.

Of Openings or Situations. The word *site*, or situation, signifies the "view, prospect, or opening of a country." It is derived from the Italian word *sito;* and our painters have brought it into use, either because they were used to it in Italy, or because, as we think, they found it to be very expressive.

Situations ought to be well put together; and so disengaged in their make, that the conjunction of grounds may not seem to be obstructed though we should see but a part of them.

Situations are various, and represented according to the country the painter is thinking of: as either open or close, mountainous or watery, tilled and inhabited, or wild and lonely; or, in fine, variegated by a prudent mixture of some of these. But if the painter be obliged to imitate nature in a flat and regular country, he must make it agreeable by a good disposition of the *claro-obscuro*, and such pleasing colouring as may make one soil unite with another.

It is certain, that extraordinary situations are very pleasing, and cheer the imagination by the novelty and beauty of their makes, even when the local colouring is but moderately performed; because, at worst, such pictures are only looked on as unfinished, and wanting to be completed by some skilful hand in colouring; whereas common situations and objects require good colouring and absolute finishing, in order to please. It was only by these properties that Claude Lorrain has made amends for his insipid choice in most of his situations. But in whatever manner that part be

executed, one of the best ways to make it valuable, and even to multiply and vary it without altering its form, is properly to imagine some ingenious accident in it.

Of Accidents. An aceident in painting is an obstruction of the sun's light by the interposition of clouds, in such a manner, that some parts of the earth shall be in light and others in shade, which according to the motion of the clouds, succeed each other, and produce such wonderful effects and changes of the *claro-obscura*, as seem to create so many new situations. This is daily observed in nature. And as this newness of situations is grounded only on the shapes of the clouds, and their motions, which are very inconstant and unequal, it follows, that these accidents are arbitrary; and a painter of genius may dispose them to his own advantage when he thinks fit to use them: For he is not absolutely obliged to do it; and there have been some able landscape-painters who have never practised it, either through fear or custom, as Claude Lorrain and some others.

Of the Sky and Clouds. The sky, in painters terms, is the ethereal part over our heads; but more particularly the air in which we breathe, and that where clouds and storms are engendered. Its colour is blue, growing clearer as it approaches the earth, because of the interposition of vapours arising between the eye and the horizon; which, being penetrated by the light, communicates it to objects in a greater or lesser degree, as they are more or less remote.

But we must observe, that this light being either yellow or reddish in the evening, at sunset, these same

objects partake not only of the light, but of the colour: thus the yellow light mixing with the blue, which is the natural colour of the sky, alters it, and gives it a tint more or less greenish, as the yellowness of the light is more or less deep.

This observation is general and infallible: but there is an infinity of particular ones, which the painter must make upon the natural, with his pencil in his hand, when occasion offers; for there are very fine and singular effects appearing in the sky, which it is difficult to make one conceive by physical reason. Who can tell, for example, why we see, in the bright part of some clouds, a fine red, when the source of the light which plays upon them is a most lively and distinguishing yellow? Who can account for the different reds seen in different clouds, at the very moment that these reds receive the light but in one place? for these colours and surprising appearances seem to have no relation to the rainbow, a phenomenon for which the philosopher pretends to give solid reasons.

These effects are all seen in the evening when the weather is inclining to change, either before a storm, or after it, when it is not quite gone, but has left some remains of it to draw our attention.

The property of clouds is to be thin and airy, both in shape and colour: their shapes, though infinite, must be studied and chosen after nature, at such times as they appear fine. To make them look thin, we ought to make their grounds unite thinly with them, especially near their extremities, as if they were transparent: And if we would have them thick, their reflections must be so managed, as, without destroying their thin-

ness, they may seem to wind and unite, if necessary with the clouds that are next to them. Little clouds often discover a little manner, and seldom have a good effect, unless when, being near each other, they seem altogether to make but one object.

In short, the character of the sky is to be luminous; and, as it is even the source of light, every thing that is upon the earth must yield to it in brightness. If, however, there is any thing that comes near it in light, it must be waters, and polished bodies which are susceptible of luminous reflections.

But whilst the painter makes the sky luminous, he must not represent it always shining throughout.

On the contrary, he must contrive his light so, that the greatest part of it may fall only upon one place: and, to make it more apparent, he must take as much care as possible to put it in opposition to some terrestrial object, that may render it more lively by its dark colour; as a tree, tower, or some other building that is a little high.

This principal light might also be heightened, by a certain disposition of clouds having a supposed light, or a light ingeniously inclosed between clouds, whose sweet obscurity spreads itself by little and little on all hands. We have a great many examples of this in the Flemish school, which best understood landscape; as Paul Brill, Breugel, Saveri: And the Sadelers and Merian's prints give a clear idea of it, and wonderfully awaken the genius of those who have the principles of the *claro scuro*.

Of Offskips and Mountains. Offskips have a near affinity with the sky; it is the sky which determines

either the force or faintness of them. They are darkest when the sky is most loaded, and brightest when it is most clear. They sometimes intermix their shapes and lights; and there are times and countries, where the clouds pass between the mountains, whose tops rise and appear above them. Mountains that are high and covered with snow, are very proper to produce extraordinary effects in the offskip, which are advantageous to the painter, and pleasing to the spectator.

The disposition of offskips is arbitrary; let them only agree with the whole together of the picture, and the nature of the country we would represent. They are usually blue, because of the interposition of air between them and the eye; but they lose this colour by degrees, as they come nearer the eye, and so take that which is natural to the objects.

In distancing mountains, we must observe to join them insensibly by the roundings off, which the reflections make probable; and must, among other things, avoid a certain edgeness in their extremities, which makes them appear in slices, as if cut with scissars, and stuck upon the cloth.

We must further observe, that the air, at the feet of mountains, being charged with vapours, is more susceptible of light than at their tops. In this case, we suppose the main light to be set reasonably high, and to enlighten the mountains equally, or that the clouds deprive them of the light of the sun. But if we suppose the main light to be very low, and to strike the mountains, then their tops will be strongly enlightened, as well as every thing else in the same degree of light.

Though the forms of things diminish in bigness, and colours lose their strength, in proportion as they recede from the first plan of the picture, to the most remote offskip, as we observe in nature and common practice; yet this does not exclude the use of the accidents. These contribute greatly to the wonderful in landscape, when they are properly introduced, and when the artist has a just idea of their good effects.

Of Verdure, or Turfing. By turfing is meant the greenness with which the herbs colour the ground: This is done several ways; and the diversity proceeds not only from the nature of plants, which, for the most part, have their particular verdures, but also from the change of seasons, and the colour of the earth, when the herbs are but thin sown. By this variety, a painter may choose or unite, in the same tract of land, several sorts of greens intermixed and blended together, which are often of great service to those who know how to use them; because this diversity of greens, as it is often found in nature, gives a character of truth to those parts, where it is properly used. There is a wonderful example of this part of landscape, in the view of Mechlin, by Reubens.

Of Rocks. Though rocks have all sorts of shapes, and participate of all colours, yet there are, in their diversity, certain characters which cannot be well expressed without having recourse to nature. Some are in banks, and set off with beds of shrubs; others in huge blocks, either projecting or falling back; others consist of large broken parts, contiguous to each other; and others, in short, of an enormous size, all in one stone, either naturally, as free-stone, or else through

the injuries of time, which in the course of many ages has worn away their marks of separation. But, whatever their form be, they are usually set out with clefts, breaks, hollows, bushes, moss, and the stains of time; and these particulars, well managed, create a certain idea of truth.

Rocks are of themselves gloomy, and only proper for solitudes: but where accompanied with bushes, they inspire a fresh air; and, when they have waters, either proceeding from, or washing them, they give an infinite pleasure, and seem to have a soul which animates them, and makes them sociable.

Of Grounds or Lands. A ground or land, in painters terms, is a certain distinct piece of land, which is neither too woody nor hilly. Grounds contribute, more than any thing, to the gradation and distancing of landscape; because they follow one another, either in shape, or in the *claro-obscuro*, or in their variety of colouring, or by some insensible conjunction of one with another.

Multiplicity of grounds, though it be often contrary to grand manner, does not quite destroy it; for besides the extent of country which it exhibits, it is susceptible of the accidents we have mentioned, and which, with a good management, have a fine effect.

There is one nicety to be observed in grounds, which is, that in order to characterize them well, care must be taken, that the trees in them have a different verdure, and different colours from those grounds; though this difference, withal, must not be too apparent.

Of Terraces. A terrace, in painting, is a piece of ground, either quite naked or having very little herbage,

like great roads and places often frequented. They are of use chiefly in the foregrounds of a picture, where they ought to be very spacious and open, and accompanied, if we think fit, with some accidental verdure, and also with some stones, which if placed with judgment, give a terrace a greater air of probability.

Of Buildings. Painters mean by buildings any structures they generally represent, but chiefly such as are of a regular architecture, or at least are most conspicuous. Thus building is not so proper a name for the houses of country people, or the cottages of shepherds, which are introduced into the *rural* taste, as for regular and showy edifices, which are always brought into the *heroic*.

Buildings in general are a great ornament in landscape, even when they are Gothic, or appear partly in habited and partly ruinous: they raise the imagination by the use they are thought to be designed for; as appears from ancient towers, which seem to have been the habitations of fairies, and are now retreats for shepherds and owls.

Of Waters. Much of the spirit of landscape is owing to the waters which are introduced in it. They appear in diverse manners; sometimes impetuous, as when a storm makes them overflow their banks; at other times rebounding, as by the fall of a rock; at other times, through unusual pressure, gushing out and dividing into an infinity of silver streams, whose motion and murmuring agreeably deceive both the eye and ear; at other times calm and purling in a sandy bed; at other times so still and standing, as to become a faithful looking glass, which doubles all the objects that are

opposite to it; and in this state they have more life than in the most violent agitation. Consult Bourdon's works, or at least his prints, on this subject: he is one of those who have treated of waters with the greatest spirit and best genius.

Waters are not proper for every situation: but to express them well, the artist ought to be perfect master of the exactness of watery reflections; because they only make painted water appear as real: for practice alone, without exactness, destroys the effect, and abates the pleasure of the eye. The rule for these reflections is very easy, and therefore the painter is the less pardonable for neglecting it.

But it must be observed, that though water be as a looking-glass, yet it does not faithfully represent objects but when it is still; for if it be in any motion, either in a natural course or by the driving of the wind, its surface, becoming uneven, receives on its surges such lights and shades as, mixing with the appearance of the objects, confound both their shapes and colours.

Of the foreground of a picture. As it is the part of the foreground to usher the eye into the piece, great care must be taken that the eye meet with good reception; sometimes by the opening of a fine terrace, whose design and workmanship may be equally curious; sometimes by a variety of well-distinguished plants, and those sometimes flowered; and at other times, by figures in a lively taste, or other subjects either admirable for their novelty or introduced as by chance.

In a word, the artist cannot too much study his foreground objects, since they attract the eye, impress the first character of truth, and greatly contribute to make

the artifice of a picture, successful, and to anticipate our esteem for the whole work.

Of Plants. Plants are not always necessary in foregrounds, because, as we have observed, there are several ways of making those grounds agreeable. But if we resolve to draw plants there, we ought to paint them exactly after the life; or at least, among such as we paint practically, there ought to be some more finished than the rest, and whose kinds may be distinguished by the difference of design and colouring, to the end that, by a probable supposition, they may give the others a character of truth. What has been said here of plants may be applied to the branches and barks of trees.

Of Figures. In composing landscape, the artist may have intended to give it a character agreeable to the subject he has chosen, and which his figures ought to represent. He may also, and it commonly happens, have only thought of his figures, after finishing his landscape. The truth is, the figures in most landscapes are made rather to accompany than to suit them.

It is true, there are landscapes so disposed and situated, as to require only passing figures; which several good masters, each in his style, have introduced, as Poussin in the heroic, and Fonquier in the rural, with all probability and grace. It is true also, that resting figures have been made to appear inwardly active. And these two different ways of treating figures are not to be blamed, because they act equally, though in a different manner. It is rather inaction that ought to be blamed in figures; for in this condition, which robs them of all connection with the landscape, they

appear to be pasted on. But without obstructing the painter's liberty in this respect, undoubtedly the best way to make figures appear valuable is, to make them so to agree with the character of the landscape, that it may seem to have been made purely for the figures. We would not have them either insipid or indifferent, but to represent some little subject to awaken the spectator's attention, or else to give the picture a name of distinction among the curious.

Great care must be taken to proportion the size of the figures to the bigness of the trees, and other objects of the landscape. If they be too large, the picture will discover a little manner; and if too small, they will have the air of pigmies; which will destroy the worth of them, and make the landscape look enormous. There is, however, a greater inconvenience in making too large than too small; because the latter at least gives an air of greatness to all the rest. But as landscape figures are generally small, they must be touched with spirit, and such lively figures as will attract, and yet preserve probability and a general union. The artist must, in fine, remember, that as the figures chiefly give life to a landscape, they must be dispersed as conveniently as possible.

Of Trees. The beauty of trees is perhaps one of the greatest ornaments of landscape; on account of the variety of their kinds, and their freshness, but chiefly their lightness, which makes them seem, as being exposed to the air, to be always in motion.

Though diversity be pleasing in all the objects of landscape, it is chiefly in trees that it owes its greatest beauty. Landscape considers both their kinds and

their forms. Their kinds require the painter's particular study and attention, in order to distinguish them from each other; for we must be able at first sight to discover which are oaks, elms, firs, sycamores, poplars, willows, pines, and other such trees, which, by a specific colour, or touching, are distinguishable from all other kinds. This study is too large to be acquired in all its extent; and, indeed, few painters have attained such a competent exactness in it as their art requires. But it is evident, that those who come nearest to perfection in it, will make their works infinitely pleasing, and gain a great name.

Besides the variety which is found in each kind of tree, there is in all trees a general variety. This is observed in the different manners in which their branches are disposed by a sport of nature; which takes delight in making some very vigorous and thick, others more dry and thin; some more green, others more red or yellow. The excellence of practice lies in the mixture of these varieties: but if the artist can distinguish the sorts but indifferently, he ought at least to vary their makes and colours; because repetition in landscape is as tiresome to the eye, as monotony in discourse is to the ear.

The variety of their makes is so great, that the painter would be inexcusable not to put it in practice upon occasion, especially when he finds it necessary to awaken the spectator's attention; for, among trees, we discover the young and the old, the open and close, tapering and squat, bending upwards and downwards, stooping and shooting: in short, the variety is rather to be conceived than expressed. For instance, the

character of young trees is, to have long slender branches, few in number, but well set out; boughs well divided, and the foliage vigorous and well shaped; whereas, in old trees, the branches are short, stocky, thick, and numerous; the tufts blunt, and the foliage unequal and ill-shaped: but a little observation and genius will make us perfectly sensible of these particulars.

In the various makes of trees, there must also be a distribution of branches, that has a just relation to, and probable connection with, the boughs or tufts, so as mutually to assist each other in giving the tree an appearance of thickness and of truth. But whatever their natures or manners of branching be, let it be remembered, that the handling must be lively and thin, in order to preserve the spirit of their characters.

Trees likewise vary in their barks, which are commonly grey; but this grey, which in thick air, and low and marshy places, looks blackish, appears lighter in a clear air: and it often happens, in dry places, that the bark gathers a thin moss, which makes it look quite yellow; so that, to make the bark of a tree apparent, the painter may suppose it to be light upon a dark ground, and dark on a light one.

The observation of the different barks merits a particular attention; for it will appear, that, in hard woods, age chaps them, and thereby gives them a sort of embroidery; and that, in proportion as they grow old, these chaps grow more deep. And other accidents in barks may arise either from moisture, or dryness, or green mosses, or white stains of several trees.

The barks of white woods will also afford much matter for practice, if their diversity be duly studied; and this consideration leads us to say something of the study of landscape.

Of the study of Landscape. The study of landscape may be considered either with respect to beginners or to those who have made some advances in it.

Beginners will find, in practice, that the chief trouble of landscape lies in handling trees; and it is not only in practice, but also in speculation, that trees are the most difficult part of landscape, as they are its greatest ornament. But it is only proposed here, to give beginners an idea of trees in general, and to show them how to express them well. It would be needless to point out to them the common effects of trees and plants, because they are obvious to every one; yet there are some things, which, though not unknown, deserve our reflection. We know, for instance, that all trees require air, some more, some less, as the chief cause of their vegetation and production; and for this reason, all trees (except the cypress, and some others of the same kind) separate in their growth from one another and from other strange bodies as much as possible, and their branches and foliage do the same: wherefore, to give them that air and thinness, which is their principal character, the branches, boughs, and foliage, must appear to fly from each other, to proceed from opposite parts, and be well divided. And all this without order; as if chance aided nature in the fanciful diversity. But to say particularly how these trunks, branches and foliages, ought to be distributed, would be needless, and only a de-

scription of the works of great masters: a little reflection on nature will be of more service than all that can be said on this head. By great masters, we mean such as have published prints; for those will give better ideas to young copyists than even the paintings themselves.

Among the many great masters of all schools, De Piles prefers Titian's wooden prints, where the trees are well shaped; and those which Cornelius Cort and Agostino Carracci have engraved. And he asserts, that beginners can do no better tha contract, above all things, an habit of imitating the touches of these great masters, and of considering at the same time the perspective of the branches and foliages, and observing how they appear, either when rising and seen from below, or when sinking and seen from above, or when fronting and viewed from a point, or when they appear in profile, and, in a word, when set in the various views in which nature presents them, without altering their characters.

After having studied and copied, with the pen or crayon, first the prints, and then the designs of Titian and Carracci, the student should imitate with the pencil those touches which they have most distinctly specified, if their paintings can be procured: but since they are scarce, others should be got which have a good character for their touching; as those of Fouquier, who is a most excellent model: Paul Bril, Breugel, and Bourdon, are also very good; their touching is neat, lively, and thin.

After having duly weighed the nature of trees, their spread and order, and the disposition of their

branches, the artist must get a lively idea of them, in order to keep up the spirit of them throughout, either by making them apparent and distinct in the foregrounds, or obscure and confused in proportion to their distance.

After having thus gained some knowledge in good manner, it will next be proper to study after nature, and to choose and rectify it according to the idea which the aforesaid great masters had of it. As to perfection, it can only be expected from long practice and perseverance. On the whole, it is proper for those who have an inclination for landscape, above all things to take the proper methods for beginning it well.

As for those who have made some advances in this part of painting, it is proper they should collect the necessary materials for their further improvement, and study those objects at least which they shall have most frequent occasion to represent.

Painters usually comprise, under the word *study*, any thing whatever which they either design or paint separately after the life; whether figures, heads, feet, hands, draperies, animals, mountains, trees, plants, flowers, fruits, or whatever may confirm them in the just imitation of nature: the drawing of these things is what they call *study;* whether they be for instruction in design, or only to assure them of the truth, and to perfect their work. In fact, this word *study* is the more properly used by painters, as in the diversity of nature they are daily making new discoveries, and confirming themselves in what they already know.

As the landscape-painter need only study such objects as are to be met with in the country, we would recommend to him some order, that his drawings may be always at hand when he wants them. For instance, he should copy after nature, on separate papers, the different effects of trees in general, and the different effects of each kind in particular, with their trunks, foliage, and colours. He should also take the same method with some sorts of plants, because their variety is a great ornament to terraces on fore-grounds. He ought likewise to study the effects of the sky in the several times of the day and seasons of the year, in the various dispositions of clouds, both in serene, thundering, and stormy weather; and in the offskip, the several sorts of rocks, waters, and other principal objects.

These drawings, which may be made at different times, should be collected together; and all that relate to one matter be put into a book, to which the artist may have recourse at any time for what he wants.

Now, if the fine effects of nature, whether in shape or colour, whether for an entire picture or a part of one, be the artist's study; and if the difficulty lies in choosing those effects well, he must for this purpose be born with good sense, good taste, and a fine genius; and this genius must be cultivated by the observations which ought to be made on the works of the best masters, how they choose nature, and how, while they corrected her, according to their art, they preserved her character. With these advantages, derived from nature and perfected by art, the painter cannot fail to make a good choice; and, by distinguishing between

the good and the bad, must needs find great instruction even from the most common things.

To improve themselves in this kind of studies, painters have taken several methods.

There are some artists who have designed after nature, and in the open fields; and have there quite finished those parts which they had chosen, but without any colour to them.

Others have drawn, in oil colours, in a middle tint, on strong paper; and found this method convenient, because, the colours sinking, they could put colour on colour, though different from each other. For this purpose they took with them a flat box, which commodiously held their pallet, pencils, oil, and colours. This method, which indeed requires several implements, is doubtless the best for drawing nature more particularly, and with greater exactness, especially if, after the work be dry and varnished, the artist return to the place where he drew, and retouch the principal things after nature.

Others have only drawn the outlines of objects, and slightly washed them in colours near the life, for the ease of their memory. Others have attentively observed such parts as they had a mind to retain, and contented themselves with committing them to their memory, which upon occasion gave them a faithful account of them. Others have made drawings in pastil and wash together. Others, with more curiosity and patience, have gone several times to the places which were to their taste: the first time they only made choice of the parts, and drew them correctly; and the other times were spent in observing

the variety of colouring, and its alterations through change of light.

Now these several methods are, very good, and each may be practised as best suits the student and his temper: but they require the necessaries for painting, as colours, pencils, pastils, and leisure. Nature, however, at certain times, presents extraordinary but transient beauties, and such as can be of no service to the artist who has not as much time as is necessary to imitate what he admires. The best way, perhaps, to make advantage of such momentary occasions, is this:

The painter being provided with a quire of paper and a black-lead pencil, let him quickly, but slightly, design what he sees extraordinary; and, to remember the colouring, let him mark the principal parts with characters, which he can explain at the bottom of the paper, as far as is necessary for himself to understand them: A cloud, for instance, may be marked A, another cloud B, a light C, a mountain D, a terrace E, and so on. And having repeated these letters at the bottom of the paper, let him write against each that it is of such or such a colour; or for greater brevity, only *blue*, *red*, *violet*, *grey*, &c. or any other shorter abbreviation. After this, he must go to painting as soon as possible; otherwise most of what he has observed will, in a little time, slip out of his memory. This method is the more useful, as it not only prevents our losing an infinity of sudden and transitory beauties, but also helps, by means of the aforesaid marks and characters, to perfect the other methods we have mentioned.

If it be asked, Which is the properest time for these studies? the answer is, That nature should be studied at all times, because she is to be represented at all seasons; but autumn yields the most plentiful harvest for her fine effects: the mildness of that season, the beauty of the sky, the richness of the earth, and the variety of objects, are powerful inducements with the painter to make the proper inquiries for improving his genius and perfecting his art.

But as we cannot see or observe every thing, it is very commendable to make use of other men's studies and to look upon them as if they were our own. Raphael sent some young men into Greece to design such things as he thought would be of service to him, and accordingly made use of them to as good purpose as if he himself had designed them on the spot: for this, Raphael is so far from deserving censure, that he ought, on the contrary, to be commended; as an example, that painters ought to leave no way untried for improving in their professions. The landscape-painter may, accordingly, make use of the works of all those who have excelled in any kind, in order to acquire a good manner; like the bees, which gather their variety of honey from different flowers.

OF PORTRAIT PAINTING.

If painting be an imitation of nature, it is doubly so in a portrait; which not only represents a man in general, but such an one as may be distinguished from all others. And as the greatest perfection of a portrait is extreme likeness, so the greatest of its faults is to resemble a person for whom it was not made; since there are not in the world two persons quite like one another.

There are four things necessary to make a portrait perfect; *air*, *colouring*, *attitude*, and *dress*.

Of Air. The air respects the lines of the face, the head-attire and the size.

The lines of the face depend upon exactness of draught, and agreement of the parts; which all together must represent the physiognomy of the person painted in such a manner, that the picture of his body may seem to be also that of his mind.

It is not exactness of design in portraits that gives spirit and true air, so much as the agreement of the parts at the very moment when the disposition, and temperament of the sitter are to be hit off. We see several portraits which, though correctly designed, have a cold, languishing, and stupid air; whilst others, less correct in design, strike us, however, at first sight with the sitter's character.

Few painters have been careful enough to put the parts well together: Sometimes the mouth is smiling, and the eyes are sad; at other times, the eyes are

cheerful, and the cheeks lank: by which means their work has a false air, and looks unnatural. We ought therefore to remember, that, when the sitter puts on a smiling air, the eyes close, the corners of the mouth draw up towards the nostrils, the cheeks swell, and the eye-brows widen: but in a melancholy air, these parts have a contrary effect.

The eye-brows, being raised, give a grave and noble air; but if arched, an air of astonishment.

Of all the parts of the face, that which contributes most to likeness is the nose; it is therefore of great moment to set and draw it well.

Though the hair of the head seems to be part of the dress which is capable of various forms without altering the air of the face; yet the head-attire which one has been most accustomed to creates such a likeness, that we scarce know a familiar acquaintance on his putting on a periwig somewhat different from that which he used to wear. It is necessary therefore, as far as possible, to take the air of the head ornament, and make it accompany and set off that of the face, if there be no reason to the contrary.

As to the stature, it contributes so much to likeness, that we very often know people without seeing their face: It is therefore extremely proper to draw the size after the sitter himself, and in such an attitude as we think fit; which was Vandyke's method. Here let us remark, that, in sitting, the person appears to be of a less free make, through the heaving of his shoulders; wherefore, to adjust his size, it is proper to make him stand for a small time, swaying in the posture we would give him, and then make our observation. But here

occurs a difficulty, which we shall endeavour to examine: "Whether it is proper, in portraiture, to correct the defects of nature?"

Likeness being the essence of portraiture, it would seem that we ought to imitate defects as well as beauties, since by this means the imitation will be more complete: It would be even hard to prove the contrary to one who would undertake the defence of this position. But ladies and gentlemen do not much approve of those painters who entertain such sentiments, and put them in practice. It is certain that some complaisance in this respect is due to them; and there is little doubt but their pictures may be made to resemble, without displeasing them: for the effectual likeness is a just agreement of the parts that are painted with those of nature; so that we may be at no loss to know the air of the face, and the temper of the person, whose picture is before us. All deformities therefore, when the air and temper may be discovered without them, ought to be either corrected or omitted in women's and young men's portraits. A nose somewhat awry may be helped, or a shrivelled neck, or high shoulders, adapted to a good air, without going from one extreme to another. But this must be done with great discretion: for, by endeavouring to correct nature too much, we insensibly fall into a method of giving a general air to all our portraits; just as, by confining ourselves too much to the defects and littleness of nature, we are in danger of falling into the low and tasteless manner.

But in the faces of heroes and men of rank, distinguished either by dignities, virtues, or great qualities, we cannot be too exact, whether the parts be beauti-

ful or not; for portraits of such persons are to be standing monuments to posterity; in which case every thing in a picture is precious that is faithful. But after whatever manner the painter acquits himself in this point, let him never forget good air nor grace; and that there are, in the natural, advantageous moments for hitting them off.

Of Colouring.—Colouring, in portraiture, is an effusion of nature, discovering the true tempers of persons; and the temper being essential to likeness, it ought to be handled as exactly as the design. This part is the more valuable, as it is rare and difficult to hit. A great many painters have come to a likeness by strokes and outlines; but certainly they are few who have shewn in colours the tempers of persons.

Two points are necessary in colouring; exactness of tints, and the art of setting them off. The former is acquired by practice, in examining and comparing the colours we see in life with those by which we would imitate it: and the art of those tints consists in knowing what one colour will produce when set by another, and in making good what either distance or time may abate of the glow and freshness of the colours.

A painter who does nothing more than what he sees, will never arrive at a perfect imitation; for though his work may seem, on the easal, to be good to him, it may not appear so to others, and perhaps even to himself, at a distance. A tint which, near, appears disjoined, and of one colour, may look of another at a distance, and be confounded in the mass it belongs to. If you would have your work, therefore, to produce a good effect in the place where it is to hang, both the colours

the lights must be a little loaded; but learnedly, and with discretion. In this point consult Titian, Rubens, Vandyke, and Rembrandt's methods; for indeed their art is wonderful.

The tints usually require three times of observation. The first is at the person's first sitting down, when he has more spirit and colouring than ordinary; and this is to be noted in the first hour of his sitting. The second is when, being composed, his look is as usual; which is to be observed in the second hour. And the third is when, through tiresomeness by sitting in one posture, his colour alters to what weariness usually creates. On which account, it is best to keep to the sitter's usual tint, a little improved. He may also rise, and take some turns about the room, to gain fresh spirits, and shake off or prevent tiresomeness.

In *draperies*, all sorts of colours do not suit all sorts of persons. In men's portraits, we need only observe great truth and great force; but in women's there must also be charms; whatever beauty they have must appear in a fine light, and their blemishes must by some means or other be softened. For this reason, a white, lively, and bright tint, ought never to be set off by a fine yellow, which would make it look like plaster; but rather by colours inclining to green, blue, or grey, or such others as, by their opposition, may make the tint appear more fleshy than usual in fair women. Vandyke often made a fillemot coloured curtain for his ground; but that colour is soft and brown. Brown women, on the other hand, who have yellow enough in their tints to support the character of fleshiness, may very well have yellowish draperies, in order to bring

down the yellow of their tints, and make them look the fresher; and near very high-coloured and lively carnations linen does wonders.

In *grounds*, two things are observable; the tone and the colour. The colour is to be considered in the same manner as those of draperies, with respect to the head. The tone must be always different from the mass it supports, and of which it is the ground, that the objects coming upon it may not seem transparent, but solid and raised. The colour of the hair of the head usually determines the tone of the ground; and when the former is a bright chesnut, we are often embarrassed, unless helped by means of a curtain, or some accident of the claro-obscuro, supposed to be behind, or unless the ground is a sky.

We must further observe, that where a ground is neither curtain nor landscape, or such like, but is plain and like a wall, it ought to be very much party-coloured, with almost imperceptible patches or stains; for, besides its being so in nature, the picture will look the more grand.

Of Attitude, or Posture.—Attitudes ought to suit the ages and qualities of persons and their tempers. In old men and women, they should be grave, majestic, and sometimes bold: and generally, in women, they ought to have a noble simplicity and modest cheerfulness; for modesty ought to be the character of women; a charm infinitely beyond coquetry! and indeed coquettes themselves care not to be painted such.

Attitudes are of two kinds: one in motion, the other at rest. Those at rest may suit every person: but those in motion are proper for young people only,

and are hard to be expressed; because a great part of the hair and drapery must be moved by the air; motion, in painting, being never better expressed than by such agitations. The attitudes at rest must not appear so much at rest as to seem to represent an inactive person, and one who sits for no other purpose but to be a copy. And though the figure that is represented be at rest, yet the painter, if he thinks fit, may give it a flying drapery, provided the scene or ground be not a chamber or close place.

It is above all things necessary that the figures which are not employed should appear to satisfy the spectator's curiosity; and for this purpose show themselves in such an action as suits their tempers and conditions, as if they would inform him what they really were; and as most people pretend to sincerity, honesty, and greatness of mind, we must avoid, in attitudes, all manner of affectation; every thing there must appear easy and natural, and discover more or less spirit, nobleness, and majesty, in proportion to the person's character and dignity. In a word, the attitudes are the language of portraits; and the skilful painter ought to give great attention to them.

But the best attitudes are such as induce the spectator to think that the sitter took a favourable opportunity of being seen to advantage, and without affectation. There is only one thing to be observed with regard to women's portraits, in whatever attitude they are placed; which is, that they sway in such a manner as to give their face but little shade; and that we carefully examine whether the lady appear most beautiful in a smiling or in a serious air, and conduct ourselves accordingly. Let us now proceed to the next article.

Of practice in Portraiture. According to De Piles, portraiture requires three different sittings and operations; to wit, dead-colouring, second-colouring, and retouching or finishing. Before the painter dead-colour, he must attentively consider what aspect will best suit the sitter, by putting him in different positions, if we have not any settled design before us, or when we have determined this, it is of the least consequence to put the parts well together, by comparing always one part with another! for not only the portrait acquires a greater likeness when well designed, but it is troublesome to make alterations at the second sitting, when the artist must only think of painting, that is, of disposing and uniting his colours.

Experience tells us, that the dead-colouring ought to be clean, because of the slope and transparency of the colours, especially in the shades; and when the parts are well put together, and become clammy, they must be judiciously sweetened and melted into each other; yet without taking away the air of the picture that the painter may have the pleasure of finishing it, in proportion as he draws. But if fiery geniuses do not like this method of scumbling, let them only mark the parts slightly, and so far as is necessary for giving an air.

In dead-colouring, it is proper to put in rather too little than too much hair about the forehead; that in finishing, we may be at liberty to place it where we please, and to paint it with all possible softness and delicacy. If, on the contrary, you sketch upon the forehead a lock which may appear to be of a good taste, and becoming the work, you may be puzzled in finish-

ing it, and not find the life exactly in the same position as you would paint it. But this observation is not meant for men of skill and consumate experience, who have nature in their heads, and make her submit to their ideas.

The business of the second sitting is, to put the colours well in their places, and to paint them in a manner that is suitable to the sitter and to the effect we propose: but before they are made clammy, we ought to examine afresh whether the parts are rightly placed, and here and there to give some touches towards likeness, that, when we are assured of it, the work may go on with great satisfaction. If the painter understands what he is about, and the portrait be justly designed, he ought as much as possible to work quick; the sitter will be better pleased, and the work will by this means have the more spirit and life. But this readiness is only the effect of long study and experience; for we may well be allowed a considerable time to find out a road that is easy, and such as we must often travel in.

Before we retouch or finish, it is proper to terminate the hair, that, on finishing the carnations, we may be abler to judge of the effect of the whole head.

If, at the second sitting, we cannot do all we intended, which often happens, the third makes up the loss, and gives both spirit, physiognomy, and character.

If we would paint a portrait at once, we must load the colouring; but neither sweeten, nor drive, nor very much oil it: and if we dip the pencil in varnish as the work advances, this will readily enable us to

put colour on colour, and to mix them without driving.

The use and sight of good pictures give greater light into things than words can express: What hits one artist's understanding and temper may be disagreeable to another's; and almost all painters have taken different ways, though their principles were often the same.

It is recommended, before we begin colouring, to catch the very first moments, which are commonly the most agreeable and most advantageous, and to keep them in our memory for use when we are finishing: for the sitter, growing tired with being long in the same place, loses those spirits, which, at his first sitting down gave beauty to the parts, and conveyed to the tint more lively blood, and a fresher colour. In short, we must join to truth a probable and advantageous possibility, which, far from abating likeness, serves rather to set it off. For this end, we ought to begin with observing the ground of a tint, as well what is in lights as in shades; for the shades are only beautiful as they are proportioned to the light. We must observe, if the tint be very lively, whether it partake of yellowness, and where that yellowness is placed; because usually, towards the end of the sitting, fatigue diffuses a general yellowness, which makes us forget what parts were of this colour, and what were not, unless we had taken due notice of it before. For this reason, at the second sitting, the colours must be every where readily clapped in, and such as appear at the first sitting down; for these are always the finest.

The surest way to judge of colours is by comparison; and to know a tint, nothing is better than to compare it with linen placed against it, or else placed next to the natural object, if there is occasion. We say this only to those who have little practised nature.

The portrait being now supposed to be as much finished as you are able, nothing remains, but, at some reasonable distance, to view both the picture and the sitter together, in order to determine with certainty, whether there is any thing still wanting to perfect the work.

Having dwelt at some length on this head, we shall now direct the attention of the student to the different colours made use of for the purposes of painting, and then take a view of the principal methods of painting now in practice; viz. Miniature Painting, Crayon Painting, Enamel Painting, &c. &c.

OF COLOURS,

The method of preparing the various kinds used in Painting.

THE various bodies employed by painters, for producing the difference of light and shade, may be termed either pigments or fluids, as they are solid or aqueous; and are distinguished in their several kinds according to the manner of working them; as oil-colours, water-colours, enamel-colours, &c. but their variety are too numerous to be in general use; most painters therefore select a set out of them, and become very unjustly prejudiced against those they reject. It is no little impediment to their improvement in the profession, that they are not more extensively acquainted with all the ingredients fit for their purposes.

Those colours which become transparent in oil, such as lake, Prussian blue, and brown pink, are frequently used without the admixture of white, or any other opake pigment; by which means the tint of the ground on which they are laid retains, in some degree, its force; and the real colour, produced in painting, is the combined effect of both. This is called glazing; and

the pigments endued with the property of becoming transparent in oil, are called glazing colours.

As colours are obtained from various substances, the means of preparing them are consequently various; some being of a simple nature, and requiring them to be purified and reduced to a proper consistence or texture; and others being compounds of different bodies, to be formed only by complex processes. It is therefore very difficult to give such general directions, for the making every sort of colour as may be intelligible to all; the utensils to be employed, as well as the methods to be pursued, being such as belong to different arts and trades.

Where nevertheless, simple means, and the use of such utensils as are generally known, may be sufficient to perform what is wanting, it is best to avoid all technical terms, and more complex methods of operation, adopting such a mode of instruction as may be universally intelligible.

OF RED COLOURS.

VERMILLION,

Is one of the most useful colours in every kind of painting; except enamel or on glass: as it is of a moderate price, spends to great advantage in any kind of work, and stands or holds its colour extremelywell. It may be prepared in great perfection by the following process:

"Take of quicksilver eighteen pounds, of flowers of sulphur six pounds; melt the sulphur in an earthen pot; and pour in the quicksilver gradually, being also gently warmed; and stir them well together, with the small end of a tobacco-pipe. But if, from the effervescence, on adding the latter quantities of the quick-silver, they take fire, extinguish it by throwing a wet cloth (which should be had ready) over the vessel. When the mass is cold, powder it so that the several parts may be well mixed together. But it is not necessary to reduce it, by nicer levigation, to an impalpable state. Having then prepared an oblong glass body, or sublimer, by coating it well with fire-lute over the whole surface of the glass, and working a proper rim of the same, round it, by which it may be hung in the furnace in such a manner that one half of it may be exposed to the fire, fix it in a proper furnace, and let the the powdered mass be put into it, so as to nearly fill the part that is within the furnace; a piece of broken tile being laid over the mouth of the glass. Sublime then the contents, with as strong a heat as may be used without blowing the fumes of the vermillion out out of the mouth of the sublimer. When the sublimation is over, which may be perceived by the abatement of the heat towards the top of the body, discontinue the fire; and, after the body is cold take it out of the furnace, and break it: collect then together all the parts of the sublimed cake, separating carefully from them any dross that may have been left at the bottom of the body, as also any lighter substance that may have formed in the neck, and appears to be dissimilar to the rest. Levigate the more perfect part;

and, when reduced to fine powder, it will be vermillion proper for use; but on the perfectness of levigation, depends, in a great degree, the brightness and goodness of the vermillion. In order therefore to perform this, it is necessary that two or three mills of different closeness should be employed, and the last should be of steel, and set as finely as possible."

It is common, perhaps general, for dealers to sophisticate vermillion with red lead. But to detect with certainty the fraud, both with respect to the general fact, and the proportion, use the following means:

"Take a small, but known quantity of vermillion, suspected to be adulterated, and put it into a crucible; having first mixed with it about the same quantity, in bulk, of charcoal dust: put the crucible into a common fire, having first covered it with a lesser crucible inverted into it: and give a heat sufficient to fuse lead; when the crucible, being taken out of the fire, should be well shaken by striking it against the ground. If the suspected adulteration has been practised, the lead will be found reduced to its metalline state, in the bottom of the crucible; and, being weighed, and compared with the quantity of cinnabar that was put into the crucible, the proportion of the adulteration may be thence certainly known. But, if no lead be found in the crucible it may be safely inferred, that no red lead had been commixt with the vermillion."

Native Cinnibar

Is found naturally formed in the earth, though seldom so pure as to be fit for the uses of painting, at least without being purified by sublimation. The mistaken

notion that it would stand better than vermillion, because it was a natural production, has made it to be coveted by painters who are curious in colours. It is, however, not worth their while to be solicitous about it, as it never excelled the best vermillion in brightness; and what is generally sold for it is a pigment compounded of quicksilver and sulphur.

Red Lead or Minum.

The goodness of red lead may be seen by its brightness, and a mixture of any kind will make it of a dull appearance. It is on this account not so liable to be sophisticated as white lead or vermillion. It is lead calcined, till it acquires a proper degree of colour, by exposing it with a large surface to the fire.

Scarlet Oker

Is an ochrous, earthy, or rather irony substance, and is the basis of green vitriol, separated from the acid of the vitriol by calcination. It is a kind of orange scarlet colour, and rivals any of the native okers, from its certainty of standing and extreme strength and warmth either as a ground, or in the shade of carnations. It is useful as a colour in any kind of painting; the manner of its preparation is as follows:

"Take of green vitriol or copperas, any quantity; and being put into a crucible, of which it will fill two thirds, set it on a common fire to boil,(taking care that it do not boil over,) till the matter be nearly dry; when it will be greatly diminished in quantity. Fill then the crucible to the same height again, and repeat the boiling and replenishing till the crucible be filled with

dry matter. Take it then from this fire, and put it into a wind-furnace; or, if the quantity be small, it may be continued in the same fire, the coals being heaped up round it. Let the contents be calcined there till they become of a red colour when cold; which must be examined by taking a little of the matter out of the middle, and suffering it to cool; for so long as it remains hot, the red colour will not appear, though it be sufficiently calcined. When duly calcined, take the oker out of the crucible while hot, and put it into water, in which the parts of the broken crucible may be soaked likewise, to obtain more easily what shall adhere to them; and stir the oker well about in the water, that all the remaining vitriol may be melted out of it. Let it then settle, and when the water appears clear, pour it off, and add a fresh quantity; taking out all the broken pieces of the crucible; and proceed as before; repeating several times this treatment with quantities of fresh water. Then purify the oker from any remaining foulness by washing over; and having brought it to a proper state of dryness, by draining off the fluid by a filter, in which the paper must be covered with a linen cloth, lay it to dry on boards."

Common Indian Red

Is substituted in place of the real kind brought from the East Indies; serving equally well for common purposes, giving a tint verging to scarlet, (varying from the true Indian red, which is greatly inclined to the purple,) and on account of its warm, though not

bright colour, it is much used, as well in finer as coarser paintings in oil. It is afforded cheap and may be thus managed:

"Take of the caput mortuum, or oker, left in the iron pots after the distillation of aquafortis, from nitre and vitriol, two parts, and of the caput mortuum or colcothar, left in the long necks after the distillation of oil of vitriol, one part; break the lumps found among them, and put them into tubs with a good quantity of water; and having let them stand for a day or two, frequently stirring them well about, lade off as much water as can be got clear from them, and add a fresh quantity: repeating the same treatment till all the salts be washed out and the water come off nearly insipid. The red powder which remains must then be washed over, and, being freed from the water, laid out to dry."

"When this is designed for nicer purposes, it should be washed over again in basons, the gross manner of lading it out of one tub into another, not fitting it always completely to such ends."

Venetian Red

Is useful to house-painters, in imitating mahogany; is a native red oker inclining to scarlet, and easily prepared by mixing it with the colcothar or caput mortuum, taken out of the aquafortis pots and washed over. It requires no other preparation for use than to be well ground with oil, unless when it is used in miniature painting; when it should be washed over with the utmost care.

Spanish Brown

Resembles the Venetian red very much in colour, but is fouler: it is a native pigment, and is used much in the same state nature produces it; being dug up in several parts of England. No other preparation in needful than freeing it well from stones and filth, and grinding it with oil to render it fit for colouring, in the preparation of cloths for pictures and other coarse work.

Calcined or Burnt Terra di Sienna

Is originally yellow; but when moderately calcined, becomes an orange red, though not very bright. It is a native oker, brought hither from Italy in the state in which it is naturally found. It is calcined by putting lumps of it either in a crucible, or naked in a common fire, and continuing it there till the colour be changed from yellow to red. It is exceedingly useful in oil-painting, and admits of no adulteration: it may be distinguished from other ochrous earths by its semi-transparency.

Carmine

Is a bright crimson colour, of great advantage in painting, as well in water as varnish: the preparation of it is kept a secret by those who prepare it in perfection; and the superiority of the French carmine shows that the proper method is wanting in England—hough some wrongly attribute the excellence to qualities in the air and water of France. There are

several recipes for this colour, but rather than insert imperfect instructions for an article of great consequence, we choose to be silent.

Lake.

The best of what is commonly sold, is made from the colour extracted from scarlet rags, and deposited on the cuttle-bone, which may be done in the following manner:

"Take a pound of the best pearl-ashes, and, having dissolved them in two quarts of water, purify them by filtering through paper. Add then to this solution two more quarts of water, and having put in a pound o. scarlet shreds, procured of the tailors, (which must be entirely clean,) boil them in a pewter boiler, till the shreds appear to have wholly lost their scarlet colour. Take them out of the solution and press them well; dipping them after in water and pressing them again, that all the fluid they had imbibed may be got from them, in order to be put back to the rest. Take then another pound of the scarlet shreds, and repeat the like treatment of them in the same solution; as also a third and fourth pound. While this is doing dissolve a pound and half of cuttle-fish-bone in a pound of strong aquafortis in a glass receiver: adding more of the bone if it appear to produce any ebullition in the aquafortis: and, having strained off this solution through flannel, pour it into the other by degrees; observing whether it produce any effervescence on putting in the last quantity: which if it do in any great degree, more of the cuttle-fish-bone must be dissolved in aquafortis: and the solution very gradually added till no ebullition

appear to be raised by it in the mixture. If this be properly managed, the fluid will soon become clear and colourless, and the tinging particles extracted from the shreds, together with the cuttle-fish-bone, will subside to the bottom and form a crimson sediment; which is the lake. The water must then be poured off, and two gallons of hard spring water must be put to the lake, and well stirred about to mix them. This being likewise poured off, after the lake has again settled to the bottom, must be replaced by another two gallons; and the same method must be repeated four or five times. But if hard water cannot be procured, or the lake appear too purple, half an ounce of alum should be added to each quantity of water before it be used. When the lake is thus sufficiently freed from salts, it must have the water drained from it in a filter covered with a linen cloth, which has been so worn as to have no nap or down remaining on its surface. After the lake has been drained to a proper dryness, it must be dropped on clean boards, by means of a proper funnel: through which, the drops being suffered to pass, and rest on the board at proper distances, they will become small cones or pyramids: in which form the lake must be suffered to dry, and the preparation is then completed."

Rose Pink.

The bases of this pigment is principally chalk; and the tinging substance extracted from Brazil, or Campeachy wood. It will not stand with oil or water, and is seldom employed but for the coarse work of house painters, or for paper hanging, unless secured from

flying with varnish, when, if good, it may be substituted for lake. It is prepared as follows:

"Take brazil wood six pounds, or three pounds of brazil and three of peachy wood. Boil them an hour with three gallons of water, in which a quarter of a pound of alum is dissolved. Purify then the fluid by straining through flannel; and put back the wood into the boiler with the same quantity of alum, and proceed as before; repeating this the third time. Mix then the three quantities of tincture together; and evaporate them till only two quarts of fluid remain; which evaporation must be performed first in the pewter boiler, and afterwards in a balneo mariæ. Prepare in the mean time eight pounds of chalk by washing over; a pound of alum being put into the water used for that purpose, which, after the chalk is washed, must be poured off and supplied by a fresh quantity, till the chalk be freed from the salt formed by the alum; after which it must be dried to the consistence of stiff clay. The chalk and tincture, as above prepared, must be then well mixed together by grinding; and afterwards laid out to dry where neither the sun or cold air can reach it; though, if it can be conveniently done, a gentle heat may be used."

Red Oker

Is a native earth, brought chiefly from Oxfordshire, and burnt afterwards (by those who prepare it) in large ovens till by calcination it becomes red. It is very useful as well in the more delicate as coarser paintings in oil, for it stands infallibly. For nicer pur-

poses it should be washed over; but for others it may be used in the state in which it is found in the shops.

OF BLUE COLOURS.

ULTRAMARINE is a bright blue colour, of the highest value in every kind of painting; being equally serviceable in all, even in enamel. It has a transparent effect in oil, and in some degree in water, and will stand without the least hazard of flying. By reason of its high price, Prussian blue has been much introduced, to the prejudice of painting in general; as the skies of landscapes and many other parts of modern pictures, shew the loss of ultramarine, by their changing from a warm or clear blue, to a faint green or olive tint. The methods have been continually varied by those who have attempted to prepare this pigment. The following is the best of the more modern:

"Take the lapis lazuli, and break it into very small pieces, or rather a gross powder; put it into a crucible, and cover it securely, to prevent the coals from falling amongst it. Calcine it then with a strong fire, for an hour, if there be any large quantity, or less time in proportion; quench it, when taken out of the fire, in vinegar, stirring them well together, and suffer it to remain in that state for a day or two. Pour off then the vinegar, except what may be necessary for moistening the calcined lapis lazuli in grinding; which operation it must then undergo, in a mortar of flint or glass, till reduced to the greatest degree of fineness

those means may effect. But, if it appear yet too hard to be easily ground, give it another short calcination, and quench it a second time in vinegar. The vinegar must then be washed off from the powder, by the putting to it several successive quantities of clean water; each of which must be poured off when the lapis lazuli has been well stirred about in them, and is again settled to the bottom. It must then be ground on a porphyry stone, with a mullar, till it be perfectly impalpable, and then dried; in which state it is duly prepared to mix with the following cement. Take of Burgundy pitch nine ounces—of white resin, and Venetian turpentine, six ounces—of virgin wax one ounce and half—and of linseed oil one ounce and a quarter; mix them together by melting in a pipkin over the fire: and suffer them to boil till they acquire so stiff a consistence, that being dropt into water, while of this boiling heat, they will not spread on the surface of it, but form in roundish mass or lump. The cement being thus formed may be poured out of the pipkin in the water, and made into cakes or rolls for use. Of this cement, take an equal weight with that of the calcined lapis lazuli and melt it in a glazed earthen pipkin; but not so as to render it too fluid. Then add to it the calcined matter by very slow degrees; stirring them together with an ivory spatula, till the whole appear perfectly mixed. Being thus mixed, heat the composition to a something greater degree, and cast it into a large bason full of cold water. When it has cooled to a consistence to bear such treatment, knead it well like the dough of bread, with the hands rubbed over with linseed oil, till all the parts

be throroughly incorporated with each other. Then make the mass into a cake, which may be either kept till some other convenient time in cold water, or immediately proceeded with in the following manner: put the cake into an earthen dish or bason, the bottom of which should be rubbed with linseed oil: and pour on it water of the warmth of blood. Let it stand a quarter of an hour; and, as the water softens the cake, it will let loose the finest part of the calcined matter, which, on gently stirring the water, but without breaking the cake, or separating it into lesser parts, will be suspended in the water, and must be poured off with it into another vessel. The quantity of water must be then renewed, and the same operation repeated a second or third time; and, as the mass appears slack in affording the colour, it must be moved and stirred, in the manner of kneading, with the ivory spatula, but not broken into fragments, or small parts; and when so much of the colour is extracted, as to render it necessary for the obtaining more, the heat of the water must be increased to the greatest degree. The quantities of the calcined matter (which is now the ultramarine) that were first washed off, and appear of the same degree of deepness and brightness, may be put together; and the same of those of the second degree: the last washings making a third. The water being then poured off from each of these parcels, put on a lixivium formed of two ounces of salt of tartar, or pearl-ashes, dissolved in a pint of water, and filtered through paper, after the solution is cold. This lixivium must be put on boiling hot, and the ultramarine stirred well about in it;

and then the mixture set to cool. The powder being subsided, the clear lixivium must be poured off, and clean water put in its place; which must be repeated till the whole of the salts of the lixivium are washed away. The ultramarine must afterwards be dried; and will be then duly prepared for use."

Ultramarine is subject to be adulterated, on account of its great price. This is frequently done by a precipitation of copper, made by alkaline salt, and is very injurious; because the magistery of copper (if the ultramarine sophisticated with it be used in painting, either with oil or water) will change its hue and turn black. And, in enamel painting, as soon as fluxed, it will become a green, and consequently make the effect of the ultramarine vary from what is intended. This fraud may be easily detected by pouring some diluted spirit of nitre on a small quantity; which, if there be any copper, will soon dissolve, and form a greenish blue solution.

Ultramarine Ashes.

After the ultramarine has been extracted from the lapis lazuli, the residuum or remains form this pigment. And when the operation of extracting the colour has not succeeded well, a considerable share of the ultramarine is left behind with the recrement, and greatly enhances the worth of the ashes; for of course the value of the latter is inferior to the former, but it is still subject to adulteration, which may be discovered by putting some of it into a small quantity of spirit of nitre, and if there be any copper in it, it will be tinged green. It is prepared as follows:

"Take the cement of the ultramarine, which remains after the colour is extracted, and mix it with four times its weight of linseed oil. Let the mixture be set in a glazed pipkin over the fire, and when it is thus boiled a short time, put it into a glass vessel sufficiently large to contain it, of a cylindrical figure; of which vessel the diameter must be small in proportion to the length. But care must be taken, that the matter, when put in this glass, be cool enough not to endanger the breaking it. This glass must then be put into a balneum mariæ, which must be made as hot as possible without boiling, and kept there till the colour appears to be all subsided to the bottom. The oil must then be poured off, till the colour appears to rise with it; and the remainder, with the colour in it, must be put in another glass of the same kind with as much fresh oil as will rise five or six inches above the colour. This class must be treated in the same manner as the first: observing when the colour has subsided, the oil must be poured off, and a fresh quantity put in its place. This having been likewise poured off, the colour must then be well washed, to free it from the remaining oil, first in boiling water, and afterwards in some of the lixivium abovementioned, made boiling hot also. As much of the lixivium being poured off, when the colour has subsided, as can be separated from it that way, the colour must be thoroughly freed from the remainder by frequent ablutions with clean water; after which the water must be taken off by the means above directed for the ultramarine, till the matter be of a proper degree of moisture for grinding. It must

then be thoroughly well ground on a porphyry, and washed over; that all the harder and insufficiently calcined parts may be reduced to an impalpable powder; in order to which, the remaining grosser parts, after the finer have been separated by the washing over, must be again ground till the whole be perfectly fine. The same means must be afterwards used to bring the ashes to a dry powder, that were before directed for the ultramarine."

Prussian Blue

Is the earth of alum, combined with the fixed sulphur of animal or vegetable coal; and may be made from almost any animal substance; but it is generally made of the coal of blood only. It is useful in all kinds of painting, save enamel; and prepared to different degrees of brightness and strength. The common kind found in the shops, and sold at very low prices, can be little depended upon in paintings of consequence; therefore it should be prepared perfect, and in the true manner: and then, considering the high price of ultramarine and the foulness of the indigo, it may be truly deemed a very valuable acquisition to the art of painting.

"Take of blood any quantity; and evaporate it to perfect dryness. Of this dry blood, powdered, take six pounds, and of the best pearl-ashes two pounds: mix them well together in a glass or stone mortar; and then put the mixt matter into large crucibles or earthen pots, and calcine it in a furnace; the top of the crucible or pot being covered with a tile, or other such convenient thing, but not luted. The calcination should be continued, so

long as any flame appears to issue from the matter; or rather till the flame become slender and blue: for if the fire be very strong, a small flame would arise for a very long time, and a great part of the tinging matter would be dissipated and lost. When the matter has been sufficiently calcined, take the vessels which contain it out of the fire; and, as quickly as possible, throw it into two or three gallons of water: and, as it soaks there, break it with a wooden spatula, that no lumps may remain. Put it then in a proper tin vessel, and boil it for the space of three quarters of an hour or more. Filter it while hot through paper in tin cullenders, and pass some water through the filter when it is quite dry, to wash out the remainder of the lixivium of the blood and pearl-ashes; the earth remaining in the filter may be then thrown away. In the mean time, dissolve of clean alum four pounds, and of green vitriol or copperas two pounds, in three gallons of water. Add this solution gradually to the filtered lixivium, so long as any effervescence appears to rise on the mixture; but, when no ebullition or ferment follows the admixture, cease to put in more. Let the mixture then stand at rest, and a green powder will be precipitated: from which, when it has thoroughly subsided, the clear part of the fluid must be poured off, and fresh water put in its place, and stirred well about with the green powder; and, after a proper time of settling, this water must be poured off like the first. Take then of spirit of salt double the weight of the green vitriol, which was contained in the quantity of solution of vitriol and alum, added to the lixivium, which will soon turn the green matter to a blue colour; and, after some time, add a proper quanti-

ty of water, and wash the colour in the same manner as has been directed for lake, &c. and when properly washed, proceed in the same manner to dry it in lumps of convenient size."

The brightness, deepness, and coolness of Prussian blue, are proofs of its goodness; for with these qualities it may be depended upon in standing well. Sophistication, or any thing amiss in the process, may be seen by its being more foul and purple.

Verditer

Is formed by adding a due proportion of chalk to a solution of copper, made by refiners in precipitating the silver from the aquafortis, in the operation called parting. Verditer is to be had at a cheap rate from the refiners, who are at no expence in making it, but that of the chalk and labour. The manner in which it may be best done by them is as follows:

"Take any quantity of chalk, and having rendered it sufficiently fine by washing over carefully, add it gradually to the solution of copper, so long as any change appears to be produced by it from the ebullition excited, or the due proportion may be perceived by the fluid losing its green tinge and becoming colourless. Let it then stand at rest till the sediment be subsided, and pour off the clear part of the fluid from the powder; adding in its place clean water, which must be several times renewed till the salts be entirely washed out. The sediment, which is the verditer, must be afterwards freed from the fluid by filtering through paper covered with a cloth, and laid out in lumps of a middling size to dry."

Those who desire to make verditer themselves, may prepare the solution of copper, by adding copper filings gradually to aquafortis of any kind, putting plates of copper in it; and then proceeding as is above directed for the refiner's solution.

Blue de Cendres; or Sanders Blue.

If enquiry is made at the colour shops for this article, nothing is to be found under the name but common verditer, or a species of it where the precipitation of the copper appears to be made in part upon starch as well as chalk. It may be prepared as follows:

"Take of the refiner's solution of copper made in the precipitation of silver from the spirit of nitre: or dissolve copper in spirits of nitre or aquafortis, by throwing in filings or putting slips of copper gradually, till all effervescence cease. Add to it of starch finely powdered, the proportion of one fifth or sixth of the weight of the copper dissolved. Make then a solution of pearl-ashes, and filter it; and put gradually, to the solution of copper, as much as will precipitate the whole of the copper; which may be known by the fluids becoming clear and colourless, though before highly tinged with green. Wash the powder, which will be precipitated in the manner directed for lake, &c. and, when it is so well drained of water by means of a filter, as to be of a proper consistence, grind the whole well together, and lay it out to dry."

Indigo.

This was formerly almost the only blue colour used in painting. It is made in the Spanish West Indies,

by means of putrefaction from certain plants, and a coagulation by the air. It cannot (as far as is hither known) be prepared in those colder climates, on account of the tender nature of the plants which produce it. The indigo brought from the French, or our own plantations, is foul, and greatly inferior in brightness, to that formerly imported hither from the Spaniards, it being equal to the Prussian blue for some purposes; and there is no other preparation necessary to using it in painting, except a perfect levigation.

Smalt.

Smalt is made from glass ground to a powder, and coloured with zaffer; or prepared from fluxing to the proportion of glass, one seventh part of zaffer, or more or less, according to the degree of deepness required. It will not work with either brush or pencil; but, by strewing it upon any ground of oil-paint while wet, it makes a bright blue shining surface, proper for large sun-dials, and other such applications. In enamel-painting, and in painting on glass, it is of great use.

Bice.

At present several compositions of indigo and verditer with chalk, and other cheap substances, are sold in this name; but the true kind is smalt, reduced to a fine powder by levigation. From its unsuitable texture, it is now greatly disused, or it makes a light warm blue colour; it was formerly used in oil, but more frequently in water-colours.

Litmus or Latmus.

Water painting is the only kind in which this can be used, and as it is brought from Holland at a very cheap rate, it were almost needless to give the preparation. But if any are desirous, for curiosity, to know the process, it is formed from archal, a species of moss, brought from the Canary and Cape de Verd Islands, and prepared as follows:

"Add quick lime and putrified urine, or spirit of urine distilled from lime, to the archal, previously bruised by grinding. This mixture must be suffered to stand till it acquires a very blue colour. After which the fluid must be suffered to evaporate, and the remaining mass, when it is of the consistence of a paste, must be laid on boards to dry in square lumps."

If it is used in miniature paintings, care must be taken of the approach of acid, for that changes it instantly from blue to red; though it will stand if no such accident intervene.

OF YELLOW COLOURS.

King's yellow when prepared well (which must be done by mixing sulphur and arsenic by sublimation) is an extremely bright colour, and a true yellow; but when mixed with white lead, and several other pigments, its colour flies or changes; this defect, joined to its nauseous smell, and the notion of its being a strong

poison, renders it unpleasing, and causes it to be rejected by many. Nevertheless, it may be used on many occasions, with great advantage, not only as a yellow, but by mixing it with blue pigments, and forming a green. King's yellow is prepared as follows:

"Take of arsenic powdered, and flowers of sulphur, in the proportion of twenty of the first to one of the second; and having put them into a sublimer, sublime them in a sand heat. The operation being over, the king's yellow will be found in the upper part of the glass, which must be carefully separated from any caput mortuum, or foul parts that may be found in the glass with it. It must be afterwards reduced to an equal power by levigation."

Naples Yellow.

The neighbourhood of Naples is said to produce this pigment naturally; of the truth of this we are dubious, but certain that it is brought from abroad. It is a yellow rather inclining to the orange: seldom used but in oil painting, where it is generally found to stand well. It is brighter than other yellows at present in use, except the king's yellow; but if it touch iron along with the least watery moisture, it will be changed by it, for which reason care should be taken to employ an ivory spatula, instead of a pallet knife, during the grinding of it with oil, which is the only preparation practised on it, as it does not well bear levigation with water.

Yellow Oker.

The substance of this is a mineral earth, found in different places, of various degrees of purity. There is

no other preparation necessary but levigation, and freeing it properly from dirt and other matter. It is a valuable colour, being a true yellow that will not fly in the least, and its texture suits it for all kinds of painting. Notwithstanding its utility it ought to be of low price.

Dutch Pink.

As this colour will not bear well to be worked in oil, nor can be depended upon with regard to its standing, it is used principally for coarser purposes in water, and is sometimes prepared in the same manner with starch and white lead; but the following preparation is very cheap and easy, and makes it to perfection:

"Take of French berries one pound, and of turmeric root powdered four ounces; boil them in a gallon of water two hours, and then strain off the tincture through flannel, and boil it again with an ounce of alum till it be evaporated to one quart. Prepare in the mean time four pounds of chalk, by washing it over, and afterwards drying it, and mix the chalk with the tincture, by grinding them together; and then lay out the Dutch pink thus made to dry on boards."

As it should be a full gold coloured yellow and very bright, any adulteration may be discovered by the eye.

English Pink.

Prepare this in the same manner, and with the same ingredients as the Dutch, only increasing the quantity

of chalk, to render it of an inferior quality, it being the same, only lighter and coarser.

Light Pink.

The only kind fit for use in oil painting is prepared in the following manner:

"Take of French berries one pound, boil them with a gallon of water for an hour; and having strained off the fluid, add to it two pounds of pearl-ashes, dissolved and purified by filtering through paper. Precipitate with alum dissolved in water, by adding the solution gradually, so long as any ebullition shall appear to be raised in the mixture. When the sediment has thoroughly subsided, pour off the water from it, and wash it with several renewed quantities of water, proceeding as has been before directed in the case of the lake, &c. drain off the remaining fluid in a filter with a paper covered with a linen cloth; and, lastly, dry it on boards in small square pieces."

Gamboge.

No yellow is of greater service in water colours, easily dissolved to a milky consistence, from the state in which it arrives. It is a gum produced in the East Indies, and nothing but the addition of water is wanting to prepare it for use.

Masticot.

As this is not a very bright colour it is little used; or it will stand perfectly in oil or in water; it works with the pencil better than most other pigments, and

certainly might be made very useful by putting flake white, or white lead, on an earthen or stone dish before a strong fire; and continuing it there till the colour be sufficiently yellow. The calcination being finished, the parts which are of the desired tint must be picked out from the rest and put together. For with the greatest care, it is difficult to calcine the whole equally. Grinding with oil is the only preparation necessary to the using of it.

Common Orpiment.

It is generally disagreeable to meddle with this, on account of its nauseous smell and poisonous quality; being a fossil body composed of arsenic and sulphur, with a mixture frequently of lead, and sometimes other metals. In its unrefined state it is only useful to colour the matted bottoms of chairs, or other coarse work; but if purified by sublimation it becomes king's yellow.

Gall Stones.

The real kind are found in the gall bladder or like ducts of beasts; and require nothing more than rubbing with water (as gamboge) to dissolve them to a dark warm yellow. But as these are not always to be procured, a fictitious kind, of equal service, may be made as follows:

"Take a quart of the bile of oxen, as fresh as possible. Put it into a proper pewter vessel, and set it to boil in a balneo mariæ: having added to it a quarter of an ounce of clear gum arabic. Evaporate the whole to about an eighth; and then remove it into a china cup or bason of proper size, and evaporate it to dryness;

collecting it into a mass as it becomes of a stiff consistence."

Terra *di* Sienna *unburnt.*

Mention has been made of this pigment being a native ochrous earth, brought from Italy; that calcination changes it from yellow to red; therefore those that choose to use it as a yellow, should take care to have it extremely well levigated, as it will serve for a deeper shade by many degrees than any of the other okers and is of a superior brightness.

Turpeth Mineral.

This for use is much such another colour in yellow as vermilion in red, and will stand equally well with that. It is a preparation of mercury, by calcining it together with oil of vitriol, and is much brighter than any other yellow used in oil, except king's yellow. The preparation:

"Take of pure quicksilver, and oil of vitriol, each six pounds. Put them into a retort, to which, (being placed in a sand bath), fit on a receiver, and distil them with a strong fire, while any fumes appear to rise into the receiver: urging it at last with as great a heat as the furnace will bear. When the retort is again cold, remove it out of the sand bath: and, having broken it, take the white mass, which will be found at the bottom of it, and break it to a gross powder, and having put it in a glass mortar, pour water on it, which will immediately convert it to a yellow colour. Let it next be thoroughly ground in this mortar, with water, and afterwards washed with several successive quantities. It

must then be thoroughly well levigated on a stone, and dried."

The YELLOW WASH, *from the French berries.*

"Take a pound of the French berries, and put to them a gallon of water, with half an ounce of alum; boil them an hour in a pewter vessel, and then filter off the fluid, through paper, if it be designed for nicer purposes, or flannel for more ordinary. Put them again into the boiler, and evaporate the fluid till the colour appears of the strength desired; or part may be taken out while less strong, and the rest evaporated to a proper body."

It may be used in water as a washing colour, and is applicable to many material purposes, as it may be made of almost any degree of deepness.

TURMERIC WASH.

The gum made from the turmeric-root dissolved in water, serves for the same purposes of the yellow berry-wash; but to procure a bright tincture, it must be dissolved in spirit instead of water, by the following method:

"Take two ounces of proof spirit, and add to it one ounce of water. Being put into a proper phial, add two drams of turmeric root in powder. Shake them well together, and let them stand three or four days, repeating the shaking as often as convenient, and a strong tincture will thus be obtained."

TINCTURE *of* SAFFRON.

It makes a good shade for gamboge or other light

bright yellows: by pouring hot water on the best English saffron, in a proper phial or other vessel; which should be placed for some time in a heat next to that which would make water boil: and the tincture should then be filtered from the dregs through a piece of linen cloth.

Zedoary Wash.

Take an ounce of zedoary-root, and boil it in a quart of water till the water appears sufficiently tinged to a yellow: strain it through linen and it will be a stronger colour than can be made of turmeric without spirits of wine, and is valuable for many purposes in painting with water colours, as flowers, yellow draperies, &c.

OF GREEN COLOURS.

Verdigrise.

Let the pulp of grapes or any such acid remain upon copper, and the rust, formed by its corrosive action, is verdigrise. It is brought from France and Italy hither, and makes a blue-green colour in paint; but will not stand in oil. It should have a small admixture of yellow to render it a true green.

Chrystals *of* Verdigrise; *called* Distilled Verdigrise.

"Take of the best verdigrise four ounces, and of distilled vinegar two quarts. The verdigrise being

well pounded, let them be put into a circulating vessel, that may be formed of a mattrass (which is a round bodied glass, with a long straight neck) and a Florence flask; which must have its neck inverted into the mattrass, the thick end being broken off. This circulating vessel must be placed in a gentle sand-heat, or rather warm situation, where it must continue, being frequently shaken, till the vinegar has dissolved as much as it can of the verdigrise. Remove the verdigrise and vinegar then into a proper glass for decanting the fluid, when it shall become clear from the sediment; and when it has stood a due time to settle, let it be carefully poured off and evaporated to about half a pint; which is best done with a sand-heat, in a glass body or cucurbit, having its neck cut off to form a wide mouth. It may be set to shoot in the same vessel, or in a glass receiver with a wide neck; and when the chrystals are formed, they must be taken out and carefully dried in the shade.

"A fresh proportion of vinegar may be added to the remains of the verdigrise, and at the same time the first quantity left undissolved; and the mothers, or fluid remaining after the chrystals were formed, may be put into it; by which means, the other parts of the process being repeated, a second quantity of the chrystals may be obtained."

The chrystals made thus are of a bright green colour, and if used with varnish so as to stand, have a fine effect; but they will not hold their colour very well in oil, being apt to turn black.

Sap Green.

Is made of the juice of buckthorn berries, and is

very useful in water painting, as a washing colour, making a strong and prety deep stain. It is prepared as follows:

"Take any quantity of buckthorn berries before they are ripe, and press out juice in such a press as is used for making cyder or verjuice; or by any other method. Strain this juice through flannel, then let it stand to settle; and when it has stood a proper time, decant off the clearer part of the fluid from the sediment. Put this juice into a stone or earthen vessel, and evaporate it till it begins to grow of a thick consistence; then remove it into a pewter vessel, and finish the evaporation in balneo mariæ, collecting the matter into one mass as it acquires a proper consistence."

Prussian Green.

This colour is much neglected, and seems almost wholly laid aside, or it has nearly all the uses in its colour that the Prussian blue has, only not so bright; nor will it stand so well; yet it might be of advantage in many kinds of painting. To make it,

"Proceed in all points as in the process given for the Prussian blue, till the solution of alum and vitriol be mixed with that of the pearl-ashes and sulphur of the coal, and the green precipitation made. Then, instead of adding the spirit of salt, omit any further mixture, and go on to wash the sediment, which is the Prussian green; and afterwards dry it, in the same manner as is directed for the blue."

Terra Verte.

This is supposed to be a native earth, brought from

abroad, of a coarse texture. It requires to be well levigated and washed over; but no other preparation is necessary previous to its use.

OF PURPLE COLOURS.

The True Indian Red.

Perhaps it may be no easy matter to procure this colour true; for it is a native ochrous earth, very useful in oil, in its compounded state, as well for force in its effect as certainty of standing. But the fictitious kind, now fallaciously called by its name, has no good property as a purple; in short, it is varied into a broken orange, and rejected by most colourmen, and painters. The true kind needs no other preparation than grinding or washing over.

Archal or Orchal.

This may be made in a very easy manner by those who cannot procure it of the manufacturers; and is an extreme bright purple fluid, but apt to dry to a reddish brown, and therefore much disused at present. To prepare it,

"Take an ounce of the archal weed or moss, as it is sold at the dry-salters; and, having bruised it well, put it into a glass phial with half a pint of weak spirit of sal ammoniacus distilled with lime. Stop the phial close, and leave the archal to infuse till a strong bluish purple tincture be formed."

OF BROWN COLOURS.

Brown Pink.

Among the variety of methods for preparing this pigment, the following is one of the best:

"Take of French berries one pound; of fustic wood in chips half a pound, and of pearl-ashes one pound. Boil them in a tin boiler, with a gallon and a half of water, for an hour; and then strain off the tincture through flannel while the fluid is boiling hot. Having prepared in the mean time, a solution of a pound and a half of alum, put it gradually to the tincture, so long as an ebullition shall appear. Proceed then to wash the sediment as in the manner directed for the lakes; and being brought, by filtering through paper with a linen cloth, to a proper consistence, dry it on boards in square pieces."

Its goodness may be judged of by its transparency, and has every quality but that of standing, but this can only be known on trial.

Bistre.

This colour is extremely serviceable in water, if procured good, which may be done by the following recipe:

"Take any quantity of soot of dry wood, but let it be of beech wherever that can be procured. Put it into water in the proportion of two pounds to a gallon; and boil them half an hour. Then, after the fluid has

stood some little time to settle, but while yet hot, pou off the clearer part from the earthy sediment at the bottom; and if, on standing longer, it forms another earthy sediment, repeat the same method: but this should be done only while the fluid remains hot. Evaporate then the fluid to dryness, and what remains will be good bistre, if the soot was of a proper kind."

Brown Oker.

After procuring this subsistence of fossil earth from the colourmen, which may be done at a very low price, care should be taken to have it well levigated and washed over; when it may be used for a foul orange colour, and may be depended on for standing well.

Cologr Earth.

Where the fore-ground of a water painting requires to be pretty strong, the Cologn earth may be used to advantage. It requires no preparation, save grinding perfectly fine with water; it being of a fossil substance and a dark blackish brown colour.

Terra Japonica, or Japan Earth.

A full brown colour is produced from this gummy substance, by dissolving it with water; but it will not mix well with oil. It is extracted from some kind of vegetable, and its goodness may be distinguished by the clearness of its colour.

Umbre

Has the quality of the other ochrous earthy substances, joined to that of drying better, which occa-

sions it to be much used in making drying oils, japanner's gold size, and the black oil lacker. In painting, some few use it with water; but before it is fit for that purpose it should be burnt, levigated and washed over.

Asphaltum.

There is an additional advantage in this colour, when used in lieu of brown pink. It is secure from flying, and retains in drying a transparent brown. If it can be procured pure, as it is found in the earth in Asia, it is certainly very useful; but it is a butuminous matter of a consistence like tar, and liable to be adulterated with turpentine and other cheap balsamic substances; which fraud is not easy to be detected, unless by the mixture taking off the native transparent, and deep brown colour, which the eye may discover.

Spanish Juice, or Extract of Liquorice.

The liquorice root is extracted by a decoction in water, and then evaporated to a well known consistence. In miniature painting it is at this time much used. It supplies the place of bistre in a great measure, though it is inferior; but there is no trouble in procuring, nor process in preparing the liquorice that is ever wanted in England.

OF WHITE COLOURS.

White Flake is brought here from Italy: It is used for oil or varnish painting, where a very clean white is

required; and is a kind of ceruss or lead corroded by acid.

There is a great deal sold at the colour shops ready prepared; that is, the true kind levigated, mixed with starch or some such substance. But it is best to procure the white flake in a lump, and then levigate it, and if it be thought proper, add any quantity of starch in the grinding, that may render it suitable to work with.

White Lead,

Is a corrosion by acid from plates of lead, prepared by those who are concerned in it at a low price. It is much employed in common purposes of painting, and may be used in nicer; but will require washing over, and then it is little inferior to flake white. Notwithstanding its cheapness, it is frequently adulterated by the makers or wholesale dealers, by adding chalk or talc, which may be seen by comparing a pure piece with a suspected one; as the fraud will appear by the difference of the weight. But to prove it more exactly use the following means:

"Take an ounce of the white lead suspected; and mix it well with about half an ounce of pearl-ashes, or of any fixed alkeline salt, and about a quarter of an ounce of charcoal dust; and having put them into a crucible, give them a strong heat. The lead will by this means be reduced to its metallic state; and, being weighed, will shew, by what it may fall short of the weight of an ounce, the proportion of the adulteration; about a tenth part being allowed for the corroding acid which formed part of the white lead."

Calcined, or Burnt Hartshorn.

"Take horn, or bones, and burn them in any common fire till they become a coal, or are calcined to some degree of whiteness. Then having freed them carefully from any coal or filth, reduce them to gross powder; and put them upon a vessel made in form of a common earthen dish, of ground crucibles and Stourbridge clay, and well dried; and procure this to be placed in a tobacco-pipe-maker's or potter's furnace, during the time they keep their pots or pipes in the fire. The earth of the horn or bones being thus thoroughly calcined, it must be very well levigated with water; and it will be yet further improved by being carefully washed over."

This is a pure white, nor will change by either air or time; for the nicest purposes it is much used in water painting, and will not turn black in the manner flake white and white lead sometimes will. It is therefore preferred by the more experienced painters.

Pearl White

Is prepared by drying or calcining oyster shells at a fire, and taking that part of the powder that is of a perfect whiteness, levigating it well on a stone, and washing it over. It is serviceable in miniature painting.

Troy White, or Spanish White,

May be used in water colours from the following preparation:

"Take a pound of chalk, and soak it well in water. Then wash over all the fine part, and having poured off the first water, add another quantity, in which two ounces of alum is dissolved. Let them stand for a day or two, stirring the chalk once in six or eight hours. Wash then the chalk again over, till it be rendered perfectly fine; and pour off as much of the water as can be separated from the chalk by that means, taking off the remainder of the dissolved alum, by several renewed quantities of fresh water. After the last water is poured off, put the chalk into one of the cullender filters, with a linen cloth over the paper; and when the moisture has been sufficiently drained off from it, lay out in lumps to dry on a proper board."

Egg Shell White

Is made of the clear shell when the inner skin is peeled off, levigated to powder of a proper fineness, and washed over. It is used by some in water colours and preferred to flake white.

OF BLACK COLOURS.

Lamp Black.

There is no other preparation than procuring it good from burning oil in a confined place, and collecting the soot. It mixes well either with oil or water, and is esteemed as the principal black in all nicer kinds of painting.

Ivory Black

"Take plates, chips, or shavings of ivory, and soak them in hot linseed oil; or, if filings are to be more easily procured, they may be used moistened with hot oil. Put them into a vessel which will bear the fire, covering them with a sort of lid made of clay and sand; which should be dried, and the cracks repaired before the vessel be put into the fire. Procure this vessel to be placed in a tobacco-pipe-maker's or potter's furnace, or any other such fire; and let it remain there during one of their heats. When it shall be taken out, the ivory will be burnt properly; and must be afterwards thoroughly well levigated on the stone with water; or it should, indeed, to have it perfectly good, be also washed over."

It is not so much used as lamp black, owing perhaps, to its drying slowly in oil, or to the frequent adulterations with charcoal dust, which renders it of a blue cast: otherwise it is, if genuinely prepared from the ivory, a full clear black, and extremely serviceable.

Indian Ink.

The true Indian ink is imported from China, and is of a consistence, when dissolved with water, extremely well adapted to the pencil. It is much used in miniature painting, and drawing of small kinds. There is a sort frequently sold for it made as follows:

"Take of isinglass six ounces; reduce it to a size, by dissolving over the fire in double its weight of water. Take then of Spanish liquorice one ounce: and dissolve

it also in double its weight of water; and grind up with it an ounce of ivory black, prepared as we have directed. Add this mixture to the size while hot; and stir the whole together till all the ingredients be thoroughly incorporated. Then evaporate away the water in a balneo mariæ, and cast the remaining composition into leaden moulds greased; or make it up in any other form."

The preceding are the chief of the substances there will be occasion to mention in drawing and painting; but crayon and enamel colours will be treated of in their places.

Those persons who are accustomed to paint in oils, generally purchase their colours ready prepared in bladders; a complete set of which, with a pallette, and requisites for painting may be procured at the colour-shops.

Complete sets of water-colours are also sold in boxes, with pencils, &c. for miniature painting, drawing, &c. The price from eight shillings to three guineas.

As the oil colours prepared in bladders, if they are kept long, become useless; and as those who are not professed artists seldom paint so much as to use them without great waste, it became a desideratum that some method should be found to render them more durable: this Mr. Blackman has accomplished; and at the same time has made them so portable, that they can be used with equal ease, with the common water colour cakes. We give the method of preparing them from Vol. VII. of the trancactions of the Society for the Encouragement of Arts, Manufactures, and Commerce.

METHOD OF PREPARING BLACKMAN'S OIL-COLOUR CAKES.

Take of the clearest gum mastick, reduced to fine powder, four ounces; of spirit of turpentine, one pint, mix them together in a bottle, stirring them frequently till the mastick is dissolved: if it is wanted in haste, some heat may be applied, but the solution is best when made cold. Let the colours to be made use of, be the best that can be procured, taking care, that by washing, &c. they are brought to the greatest degree of fineness possible. When the colours are dry, grind them on a hard close stone (porphyry is the best) in spirit of turpentine, adding a small quantity of the mastick varnish; let the colours so ground become again dry; then prepare the composition for forming them into cakes, in the following manner: Procure some of the purest and whitest spermaceti you can obtain; melt it over a gentle fire, in a clean earthen vessel; when fluid, add to it one third of its weight of pure poppy oil, and stir the whole well together; these things being in readiness, place the stone on which your colours were ground on a frame or support; and, by means of a charcoal fire under it, make the stone warm; next grind your colour fine with a muller; then, adding a sufficient quantity of the mixture of poppy oil and spermaceti, work the whole together with the muller to a proper consistence; take then a piece of a fit size for the cake you intend to make; roll it into a ball, put it into a mould, press it, and it will be complete.

When these cakes are to be used, they must be rubbed down in poppy or other oil, or in a mixture of spirit of turpentine and oil, as may best suit the convenience or intention of the artist.

OF THE DIFFERENT METHODS OF PAINTING.

THE different modes of painting now in use are:

Oil painting; preferable to all other methods, as it admits of a perfect gradation of tints in the most durable of all materials, except those of

Mosaic painting; in which an imitation of objects is produced by the junction of a great number of small pieces of natural marble of different colours fixed in stucco, or mortar, so that if the mortar is well prepared, the monuments of this art may descend to the most remote ages. Some of the works of the great Italian masters have been excellently copied in mosaic, and are to be seen in St. Peter's church at Rome.

Fresco painting; which is performed with colours deluted in water, and laid on a wall newly plaistered, with which they incorporate, and are sometimes as durable as the stucco itself.

Crayon painting; in which colours, either simple or compound, are ground in water mixed with gum, and made into small rolls of hard paste, which are then used on paper or parchment.

Miniature painting; which consists of colours prepared with water or gum, and laid on vellum or ivory. It is of course confined to works of a very small size.

Enamel painting; which is performed on copper or gold, with mineral colours, dried by fire. This method is also very durable.

Wax, or encaustic painting; performed by the mixture of wax with the varnish and colours.

Painting on glass; too well known to need description, and performed by various methods.

Painting in distemper; which is with colours mixed with size, whites of eggs, or any thin glutinous substance, and used on paper, linen, silk, board, or wall.

Painting in water colours, more properly called limning: it is performed with colours mixed with water, gum, size, paste, &c. on paper, silk, and various other materials.

To these is to be added *elydoric painting*, consisting of a mixed use of oil-colours and water.

Our limits will not permit us to present our readers with a detailed account of the whole of these modes of practising this delightful art; we shall therefore only treat of those we deem most important and that in our idea may most tend to the general instruction of the student.

OIL PAINTING.

The principal advantage of oil-painting over other methods consists in the colours drying less speedily, so that it allows the painter to finish, smooth, and retouch his works, with greater care and precision. The colours, also being more blended together, produce more agreeable gradations, and a more delicate effect.

The antients are said to have been ignorant of the secret of painting in oil, which is only the grinding the

usual colours in several kinds of oil, as poppy-oil, nut-oil, and linseed-oil. This method was likewise unknown to the first masters of the modern Italian schools, and is generally thought to have been discovered in the 14th century. It was first used on board or pannel, afterwards on plates of copper, and on linen cloth. Whichever of these materials is used for the purpose of painting on, it is requisite that a ground of colour is previously laid, which is called the priming; or else that they are covered with a layer of size, or other glutinous substance, to prevent the oil from penetrating, and being wholly absorbed during the painting of the picture. These preparations are familiarly known to all colourmen.

In some of the pictures of Titian and Paolo Veronese, there is reason to believe that they laid their ground with water-colours, and painted over it with oil, which contributed much to the vivacity and freshness of their works, by the ground gradually imbibing so much of the oil as may be requisite to preserve the brightness of the natural colours.

As the superior beauty of oil-painting depends on the vividness and delicacy of durable tints, we shall present the student with the best rules drawn from a careful study of the works of Vandyck and Rembrandt, two of the most remarkable colourist in different styles. These rules are arranged in so easy a method, that the student may be led, step by step, through all the difficulties of this nice and pleasing progress.

We shall first treat of the painting of flesh, next of draperies, then of the back-ground, and lastly of landscapes.

Of Painting Flesh.

Principal colours from which all the tints of the flesh are made, and their qualities in painting.

Flake-white is the best white known to us. This colour should be ground with the finest poppy-oil, that can be procured. It is often found to turn yellow, on account of the oil, generally sold by that name, not being really drawn from poppies.

White comes forward to the eye with yellows and reds, but retires with blues and greens. It is the nature of all whites to sink into whatever ground they are laid on, therefore they should be laid on white grounds.

Ivory-black is the best black; it is a colour which mixes kindly with all the others. It is the true shade for blue; and when mixed with a little Indian red, it is the best general shadow-colour that can be used. It is generally ground with linseed-oil, and used with drying-oil.

Black is a cold, retiring colour.

Ultramarine is the finest blue in the world: it is a tender retiring colour, and never glares, and is a beautiful glazing colour. It is used with poppy-oil.

Prussian-blue is a very fine blue, and a kind working colour: it is ground with linseed-oil, though nut-oil is more proper. It should never be used in the flesh, but in green tints and the eyes.

Light-ochre is a good mixing colour, and of great use in the flesh: it is usually ground with linseed-oil,

but nut-oil is better. All yellows are strengthened with red, and weakened with blues and greens.

Light-red is nothing but fine light ochre burnt. This and white, in mixing, produce a most perfect flesh colour. It is a beautiful, clean colour; but too strong for the white, and therefore will grow darker. It should be ground and used with nut-oil.

No vermilion but what is made of the true native cinnabar should be used. It will not glaze; but is a fine colour when it is glazed. It is ground with linseed-oil, and should be used with drying oil.

Carmine is the most beautiful crimson; it is a middle colour, between lake and vermilion: it is a fine working colour, and glazes well. It should be ground with nut-oil, and used with drying oil.

Lake is a tender deep red, but of no strong body: therefore it should be strengthened with Indian red. It is the best glazing colour that can be used. It is ground with linseed-oil, and used with drying oil.

Indian red is a strong pleasant working colour, but will not glaze well: and when mixed with white, falls a little into lead: it is ground and used as the lake.

Brown pink is a fine glazing colour, but of no strong body. In the flesh it should never join or mix with the lights, because this colour and white antipathize, and mix of a warm dirty hue: for which reason their joinings should be blended with a cold middle tint. In glazing of shadows it should be laid before the other colours that are to enrich it: it is one of the finishing colours and therefore should never be used in the first painting. It is strengthened with burnt umber, and

weakened with terraverte; ground with linseed-oil, and used with drying oil.

Burnt umber is a fine warm brown, and a good working strong colour: it is of great use in the hair, and mixes finely with the warm shade.

Principal tints, composed from the foregoing principal colours, and necessary for painting flesh.

Light red tint is made of light red and white: it is the best conditioned of all colours, for the general ground of the flesh. With this colour and the shade tint, you should make out all the flesh, like claro-obscuro, or mezzitinto. Remember, that this colour will grow darker, because it is in its nature too strong for the white; therefore you should improve it, by mixing vermilion and white with it, in proportion to the fairness of the complexion.

Vermilion tint is only vermilion and white mixed to a middle tint: it is the most brilliant light red that can be. It agrees best with the white, light red, and yellow tints.

Carmine tint is carmine and white only, mixed to a middle tint, it is of all colours the most beautiful red for the cheeks and lips; it is one of the finishing colours, and should never be used in the first painting, but laid upon the finishing colours without mixing.

Rose tint is made of the red shade and white, mixed to a middle degree, or lighter: It is one of the cleanest and most delicate tints that can be used in the flesh, for clearing up the heavy dirty colours, and in changing will sympathize and mix kindly.

Yellow tint is often made of Naples yellow and white; but it is as well to use light ochre and white, which is a good working colour. The ochre is too strong for the white; therefore you should make a little allowance in using it. It follows, the light red tints and yellows should always be laid before the blues. If you lay too much of it, you may cover the ground it was laid on with light red tints.

Blue tint is made of ultramarine and white, mixed to a lightish azure: it is a pleasant working colour; with it you should blend the gradations. It follows the yellows, and with them it makes the greens; and with the reds it produces the purples. No colour is so proper for blending down or softening the lights into keeping.

Lead tint is made of ivory black and fine white, mixed to a middle degree: it is a retiring colour, and therefore is of great use, in the gradations and in the eyes.

Green tint is made of Prussian blue, light ochre, and white. This colour will dirty the lights, and should be laid sparingly in the middle tints. It is of most use in the red shadows, where they are too strong.

Shade tint is made of lake, Indian red, black, and white, mixed to a beautiful murrey colour, of a middle tint. This is the best mixture for the general ground of shadows. It mixes well with the lights and produces a pleasant clean colour, a little inclined to the reddish pearl. As all the four colours of its composition are of a friendly sympathizing nature, so consequently this will be the same, and therefore may be easily changed by the addition of any other colours.

Red shade is nothing but lake and a very little Indian red. It is an excellent working colour, and a good glazer: It strengthens the shadows on the shade tint and receives, when it is wet, the green and blue tints agreeably. It is a good ground for all dark shadows.

Warm shade is made of lake and brown pink, mixed to a middle degree. It is a fine colour for strengthening the shadows on the shade tint, when they are wet or dry. Take care that it does not touch the lights, because they mix of a dirty colour, and therefore should be softened off with a tender cold tint.

Dark shade is made of ivory-black and a little Indian red only. This colour mixes very kindly with the red shade, and blends agreeably with the middle tints in the dead colouring. It is excellent for glazing the eye-brows and the darkest shadows.

Process. The process of oil-painting, particularly in the colouring of flesh and in landscape, is to be divided into three stages or paintings.

The colours and tints necessary for the first and second stages of painting flesh, are; 1. flake, or fine white; 2. light ochre and its tints: 3. light red and its two tints; 4. vermilion and its tint; 5. a tint composed of lake, vermilion, and white; 6. rose tint; 7. blue tint; 8. lead tint; 9. green tint; 10. half-shade tint, made of Indian red and white; 11. shade tint; 12. red shades; 13. warm shade.

The finishing pallet for a complexion requires five more, viz. 1. carmine and its tint; 2. lake; 3. brown pink; 4. ivory-black; 5. Prussian blue.

First stage, or dead-colouring of Flesh.

The first lay of colours consists of two parts; the one is the work of the shadows only, and the other that of the lights.

The work of the shadows is, to make out all the drawing very correctly, with the shade tint, in the same manner as if it was to be done with this colour only; and remember to drive or lay the colour sparingly. The lights should be all laid in with the light red tint, in different degrees, as we see them in nature. These two colours united, produce a clean, tender, middle tint. In uniting the lights and shades, you should use a long softener, about the size of a large swan-quill, which will help to bring the work into character, and leave the colouring more delicate; then go over the darkest shadows with the red or warm shade which will finish the first lay.

The warm shade being laid on the shade tint, improves it to a warmer hue; but if laid instead of the shade tints, it will dirty and spoil the colours it mixes with; and if the red shade is laid first, instead of the shade tint, the shadows would then appear too red; therefore, notwithstanding these two colours are the best that can be for the shadows, yet they are too strong to be laid alone, which is a proof of the great use and merit of the shade tint. Here we may observe that the shade and light red tints are so friendly in their nature, that even in continually altering and changing, they always produce a clean colour of a pearly hue.

Next. In order to finish the first painting, improve the reds and yellows to the complexion, and after them

the blues observing, that the blues on the reds make the purple, and on the yellows produce the green. The same method is to be understood of the shadows; but be sure and leave them clean and not too dark; therefore allowance should be made in the grounds with the light red, because glazing them will make them darker. When the cloth is of a dark, or bad colour, there must be a strong body of colour laid all over the shadows, such as will not sink into the ground, but appear warm, and a little lighter than the life, so that it may be of the same forwardness to finish as if it had been a light ground; therefore the business of dead-colouring is, that you leave it always in the same order for finishing, though the colour of the cloth is quite the reverse.

The grounds of shadows, in what we call the dead-colouring, should be such as will support the character of the finishing colours; which ground must be clean, and a little lighter than the finishing colours, because the finishing of the shadows is glazing; and no other method than glazing can leave such brilliancy and beauty as they ought to have. If you begin the first painting with glazing, it will stare and be of no use; and the solid colours which are laid on it, will look heavy and dull; therefore, all shadows and colours that are to be glazed, should be done with colours of a clean solid body, because the glazing is more lasting, and has the best effect on such colours. Remember to leave no roughness, that is, none such as will appear rough, and interrupt or hurt the character of the finishing colours; which, by examining the work, whilst it is wet, with a soft tool, or when it is dry with a knife,

may be avoided, as it will easily take off the knots and roughest parts.

The light red and white improved is superior to all other colours for the first lay or ground; which should be always done with a full pencil of a stiff colour, made brighter than the light, because it will sink a little in drying. The greater the body and quantity of colour, and the stiffer it is laid, the less it will sink. Every colour in drying will sink, and partake, in proportion to its body, of the colour it is laid on; therefore, all the lights of the flesh, if not laid on a light ground, must consequently change a little from the life, if there is not allowance made. The shade tint for the shadows should fall into the rose tint, as the complexion grows delicate; all which should be lightly united: with a soft long pointed hog-tool, to the lights, making out the whole like mezzotinto. The great masters very seldom softened or sweetened the colours; but in uniting the first lay, they were very careful in preserving the brightness of their colours, and therefore did not work them below the complexion; for to force or keep up a brilliancy in the grounds, can only be done with the whites, reds, and yellows, which method will make up for the deficiency of the white grounds; therefore, the first painting should be left bright and bold, and the less the colours are broken the better. You should forbear using any colours that would produce them, and be contented to add what is wanting in the next painting; where, if you fail, a clean rag will restore the first ground.

Second painting, or second stage.

The second painting begins with laying on the least quantity, that can be, of poppy-oil; then wipe it almost all off, with a dry piece of a silk handkerchief.

The second painting is also divided into two parts; one, the first lay of the second painting; which is scumbling the lights, and glazing the shadows; the other, finishing the complexion with the virgin tints, and, improving as far as you can, without daubing.

First. Scumbling is going over the lights, where they are to be changed, with the light red tints, or some other of their own colours, such as will always clear and improve the complexion, with short stiff pencils; but such parts only as require it, otherwise the beauty of the first painting will be spoiled.

The light red tint improved is the best colour for scumbling, and improving the complexion in general. Where the shadows and drawing are to be corrected, you should do it with the shade tint, by driving the colour very stiff and bare, that you may the easier retouch and change it with the finishing tints. Some parts of the shadows should be glazed with some of the transparent shadow-colours, such as will improve and come very near to the life; but be sure not to lay on too much of it, for fear of losing the hue of the first painting, the ground of which should always appear through the glazing. Be very careful in uniting the lights and shades, that they do not mix dead and mealy; for the more the lights mix with the shades, the more mealy those shades will appear. Thus far

the complexion is prepared and improved, in order to receive the virgin tints.

Second. Go over the complexion with the virgin tints. These are the colours which improve the colouring to the greatest perfection, both in the lights and shadows.

This should be done in the same manner as you laid them in the second part of the first painting; that is, with the reds, yellows, and blues, blending them with delicate light touches of the tender middle tints, without softening. Leave the tints and their grounds clean and distinct, and be content to leave off whilst the work is safe and unsullied, leaving what is farther required for the next sitting; for in attempting the finishing touches before the other is dry, you will lose the spirit and drawing, and your colours will become of a dirty hue.

Third painting, or finishing.

It is to be supposed, the complexion now wants very little more than a few light touches; therefore there will be no occasion for oiling.

Begin with correcting all the glazing; first, where the glazing serves as a ground or under part; then determine what should be done next, before you do it, so that you may be able to make the alteration on the part with one stroke of the pencil. By this method you preserve both the glazing and the tints; but if it happens that you cannot lay such a variety of tints and finishing colours as you intended, it is much better to leave off while the work is safe and in good order; because those few touches, which would endanger the

beauty of the colouring, may easily be done, if you have patience to stay till the colours are dry; and then, without oiling, add those finishings with free light strokes of the pencil.

Rembrandt touched up his best pictures a great many times, letting them dry between. It was this method which gave them their surprising force and spirit. It is much easier to soften the over-strong tints when they are dry, than when they are wet; because you may add the very colours that are wanting, without endangering the dry work. If any of the colours of the pallet want to be a little changed to the life, when you are painting, it is much better to do it with the knife on the pallet than with the pencil, because the knife will mix and leave it in good order for the pencil.

Of painting draperies.

In order to shew the nature and different degrees of colours of tints used in painting draperies, we must first determine how many divisions are absolutely necessary to make the first lay of colours, and after that the reflections and finishing tints.

The right method of painting draperies in general, is to make out the whole, or first lay, with three colours only, viz. the lights, middle-tint, and shade tint.

Observe that the lights should rather incline to a warmish hue; and the middle tint should be made of friendly-working colours, such as will always mix of a clean, tender, coldish hue. The shade tint should be made of the same colours as the middle tint, only

with less light; therefore this tint will also mix of a tender clean colour. The beauty and character of the folds, the shape, attitude, and principal lights and shades, are all to be considered, and made with these three colours only; which should be done to your satisfaction, before you add any of the reflects, or finishing tints.

The reflections of draperies and satins are generally productions of their own, and are always lighter than the shadows on which they are found; and being produced by light, will consequently have a light warm colour, mixed with the local colour that receives them. Here it will be necessary to notice the general method of managing the colours of the first lay, and those of the reflections and finishing tints.

In the first lay, the lights should be laid with plenty of stiff colours, and then shaped and softened into character with the middle tint very correctly. Where the gradation of the lights are slow, as in the large parts, it will be proper to lay the middle tint first at their extremities, with a tool that will drive the colour, and leave it sparingly; because the lights will mix and lie the better upon it. Next make out all the parts of the shadows with the tint driven bare. After this comes the middle tint, for the several lights and gradations; which should be very nicely wrought up to character without touching any of the high lights which finish the first lay.

The reflects and finishing tints are in general the antipathies of the first lays: they will, without great care, dirty the colours on which they are laid; and therefore should be laid with a delicate light touch

without softening. If it is overdone, endeavour to recover it with the colour of the part on which it was laid: this may be done directly, or when it is dry. Whether the reflects proceed from the same colour or any other, the method of using them is the same.

Before we proceed to the particular colours, it will be proper to make some observations on their grounds.

It often happens, that the colour of the cloth is very improper for the ground of the drapery; and when it is so, you should change it with those colours which are most proper to improve and support the finishing colours. This method of dead-colouring must consequently preserve them in the greatest lustre. In dead-colouring, you should lay the lights and shades in a manner so as only to show a faint idea of them, with regard to the shape and roundings of the figure. If you have a design to work from, then it will be proper to make all the large and principal parts in their places: which should always be done with a colour that is clean, and lighter than the intended drapery, though in general of the same hue; and let the shadows be no darker than a middle tint. These should be mixed and broke in a tender manner, and then softened with a large tool, so that nothing rough and uneven is left to interrupt or hurt the character of the finishing colours.

White satin. All whites should be painted on white grounds, laid with a good body of colour, because this colour sinks more into the ground than any other.

There are four degrees of colours in the first lay to white satin. The first is the fine white for the lights; the second is the first tint, which is made of

fine white and a little ivory-black, mixed to an exact middle degree between the white and the middle tint. This colour follows the white; and it is with this you should shape the lights into character before you lay on any other; and take care that this first tint appears distinctly between the white and the middle tint, otherwise the beauty and the character of the satin will be spoiled.

The middle tint should be made of white, black, and a little Indian red. These three colours are very friendly, and mix to a beautiful clear colour of a pearly hue, which has the true brightness and warmth of the general hue of the satin. Remember to allow for the red hue changing a little to the lead. If there is occasion to make any part in the middle tint lighter, do it with the first tint only. This colour should also be laid sparingly before the white, in all the little lights that happen in the middle tints and shadows; on which you should lay the white with one light touch, and be sure not to cover all the parts that were made with the first tint; if you do, it will spoil the character, and look like a spot, for want of the softening edge or border, which must be between the white and the middle tint. The shade tint should be made of the same colour as the middle tint, but with less white, so that it is dark enough for the shadows in general; with which make out all the parts of the shadows nicely to character, which is the work of the first lay.

Next follow the reflects and finishing tints.

Brown ochre, mixed with the colour of the light, is the most useful colour in general for all reflects in dra-

peries that are produced from their own colours. All accidental reflexes are made with the colour of the parts from which they are produced, and the local colours that receive them. There are but two reflecting tints wanted for draperies in general: one should be lighter than the middle tint, the other darker. These colours may be a little changed on the pallet with the first and middle tints, as occasion requires, or lightly broken on the part that receives them; but this last method is not so safe as the other. The tint sufficient for blending the dark shadows to the mellow tender hue, is made with the shade tint and a little brown ochre, which should be laid on very sparingly, with soft light touches, for fear of making them dull and heavy; if it is overdone, recover it with the colour it was laid upon.

We often see a little blue used in the first tint of white satin. Van Haecken, who was the best drapery-painter in England, did so; and sometimes, instead of the blue, he used blue-black, till he found it to be a pernicious colour, and was therefore obliged to use blue; because his middle tint, which was only of black and white, was so very cold, that no other colour but blue would make a colder tint; yet he managed these cold colours, in all the lights and middle tints, so agreeably, and so light and easy was his touch, that we may learn something from him.

Blue Satins. Blue satin is made of Prussian blue and fine white.

The best ground for blue is, white for the lights and black and white for the shadows.

The first lay of colours for blue is divided into three

degrees or tints. First make the middle tint of a beautiful azure; then mix the colour for the light about a middle degree, between that and white. Make the shade tint dark enough for the shadows in general. All the broad lights should be laid with plenty of colour, and shaped to character with the middle tint, before you lay on other colours. Remember, the less colours are mixed, the better they will appear and stand; for the lights of blue should be managed with as much care as those of white satin. Next follow with the rest of the middle tint, and then make out all the shadows. The more you drive the shade tint, the better it will receive the reflects and finishing tints. The shadows should be strengthened and blended with ivory black, and some of their own colour, which will mix with them into a tender mellow hue.

The reflects are made as those of white satin, that is, with ochre, and some of the lights; which should be perfectly done, as you intend them, at once painting. The shadows, when dry, may be a little improved, if there is occasion to alter them, with the colours they are made with. The Prussian proper to be used, is that which looks of the most beautiful azure before it is ground; and the sooner it is used after it is ground, the better it will work and appear.

Velvet may be painted at once. The method is, to make out the first lay with the middle tint and shade tint; on which lay the high lights, with light touches, and finish the shadows in the same manner as those of satin: but the nearest imitation of velvet

is done by glazing; the method of which is, to prepare a ground, or dead-colouring, with such colours as will, when dry, bear out and support the glazing colour in its highest perfection. The nature of the glazing colour is to be of a fine transparent quality, and used simply with oil only, so that whatever ground it is laid on, the whole may appear distinctly through it. The best ground for blue is made with white and ivory-black: the white is for the high lights, which, with the middle tint and shade tint, makes out the first lay like mezzotinto. Remember to make the middle tint lighter in proportion to the glazing, because that will make it darker. It is often necessary to cover all but the high lights, with a thin glazing, laid in less quantity than if it was to be done once only. If any of it touches the lights, wipe it off with a clean rag. The very high lights should be improved, and made of a fine white, and left to dry. The glazing colour is Prussian, ground very fine with nut oil, and should be laid with a large stiff fish tool. It is on the last glazing we should strengthen and finish the shadows.

The greatest fault in the colouring of draperies is the painting the shadows with strong glaring colours, which destroy the beauty of the lights. This is not only the reverse of art, but of nature, whose beauty always diminishes in proportion with the lights. For this reason, take care to blend and soften the shadows with such friendly colours as will agree with their local character and obscurity. Here observe, that glazing the middle tint, which is made of black and white, will not produce a colour so blue as if it had been prepared with Prussian and white; yet this colour will preserve

the beauty of the lights in the highest perfection, by reason of its tender obscure hue, when the blueness of the other would only diminish them. This method of glazing the blue is the general rule for all glazing.

When glazing blue, the lights may be glazed with ultramarine, though all the other parts are done with Prussian. This method saves a great quantity of that valuable colour, and answers the purpose as well as if it had been done with ultramarine.

Though the general method of painting satins is to make the first lay of colours with three degrees, or tints, yet you should understand, in using them, that they produce two more: for the mixing of two different colours together on the cloth will make another of a middle tint between them; so it is with the lights and middle tints, and with the middle tint and shade tint: the first answers to the first tint in white satin, and the last will consequently be a sort of gradating, or half shade.

If the lights and middle tint mix to a beautiful clean colour, of a middle hue between both, there will be no occasion for a colour to go between them, as in blue satin; but if in mixing they produce a tint inclined to a dirty warm hue, then another of a sympathizing nature should be laid between them, in order to preserve the beauty of the lights, as the first tint in the white satin; for if it was not so, the red in the middle tint would certainly dirty and spoil the white.

It is highly necessary to understand these principles of the first lay of colours, in order to have a perfect knowledge of the general rule of colouring.

Scarlet and Crimson. A light yellow red, made of light ochre, light red, and white, is the proper ground for scarlet; the shadows are Indian red, and in the darkest parts mixed with a very light black.

The second painting should be a little lighter than you intend the finishing colour, that is, in proportion to the glazing, which will make it darker.

The high lights are vermilion and white for satin and velvet, and vermilion for cloth. The middle tint is vermilion, with a very little lake or Indian red; the shade tint is made with Indian red and lake, with the addition of a little black in the darkest shadows. The difference between scarlet and crimson is, that the high lights of crimson are whiter, and the middle tint is made darker. Their reflects are made with light red and vermilion. The high light should be laid and managed in the same manner as those of the blue, for fear of dirting them; and sometimes they require to be touched over the second time before we glaze them. The more the colours of the second painting are drove, the easier and better they may be managed to character; but the high lights should have a good body of colour, and be left with a delicate light touch. After it is well dry, finish with glazing the whole with fine lake, and improve the reflects and shadows. Remember that the scarlet requires but a very thin glazing; and it is better to glaze the crimson twice over, than lay too much at once painting.

Pink colour. There are two different methods of painting a pink colour; one is by glazing, the other is done with a body of colours at one painting. The same grounds do for both; which should be a whitish

colour, inclining to a yellow, for the lights; and Indian red, lake, and white, for the shadows.

The second painting, for the glazing method, is done with the same colours, and a little vermilion and white for the high lights. When it is dry, glaze it with fine lake, and then break and soften the colours into harmony directly.

The other method is to make the high lights with carmine and white; the middle tint with lake, white, and a little carmine; and the shadows with lake and Indian red, with a little vermilion for the reflections. But remember, the shadows will require to be broken with some tender obscure tint.

Yellow. The ground for yellow should be a yellowish white for the lights, and a mixture of the ochres for the shadows.

There are the same number of tints in the yellow, as there are in the white satin, and the method of using them is the very same. The lights are made with king's yellow, ground with clean good drying oil. The first tint is light ochre, changed with a little of the pearl tint, made with the dark shade and white, which should be laid and managed as the first tint in white satin, the middle tint is a mixture of the light and brown ochre, softened with the pearl tint. The shade tint is made with brown pink and brown ochre: these belong to the first lay.

The reflects are light ochre, and sometimes in the warmest parts mixed with a little light red. The shadows are strengthened with brown pink and burnt umber.

Green. The proper ground for green is a light yel-

low green, which is made of light ochre, a little white, and Prussian blue, for the lights, and the ochre, brown pink, and Prussian, for the shadows.

The finest green for draperies is made of king's yellow, Prussian blue, and brown pink. The high lights are king's yellow, and a very little Prussian; the middle tint should have more Prussian; and the shadow tint is made with some of the middle tint, brown pink, and more Prussian; but the darkest shadows are brown pink and a little Prussian. The lights and middle tint should be managed in the same manner as those of the blues. The shadow tint should be kept entirely from the lights, because the brown pink that is in it will, in mixing, dirty them, as the black does those of the blues. Remember to allow for their drying a little darker; and that the king's yellow must be ground with good drying oil; for the longer it is drying, the more it will change and grow darker; and the sooner it is used, the better it will stand. It is proper to have two sorts of king's yellow, one to be very light, for the high lights of velvet.

Changeable colours. Changeable colours are made with four principal tints, viz. the high lights, middle tint, shade tint, and reflecting tint.

The greatest art lies in finding the exact colour of the middle tint, because it has more of the general hue of the silk than any of the others. The shade tint is of the same hue with the middle tint, though it is dark enough for the shadows. The high lights, though often very different from the middle tint, should be of friendly-working colour, that will, in mixing with it, produce a tint of a clean hue.

The method of painting silks is to make out the folds with the shade tint, and then fill them up in the lights with the middle tint. This first lay should be done to your satisfaction before you add any other colours; and the stiffer the middle tint is used, the better the high lights may be laid upon it. The reflecting tint falls generally upon the gradating half-shades, and should be laid with tender touches sparingly, for fear of spoiling the first lay.

This method of painting answers for all coloured silks, as well as changeable, with this difference only; that the plain colours require not so much art in matching the tints, as the changeable do. The last part of the work is the finishing and strengthening the shadows with an obscure tint, a little inclining to a mellowish hue; such as will not catch the eye, and interrupt the beauty of the lights.

Black. The best ground for black is light red for the lights, and Indian red and a little black for the shadows.

The finishing colours are, for the lights, black, white, and a little lake. The middle tint has less white, and more lake and black; the shade tint is made of an equal quantity of lake and brown pink, with a very little black.

The method of painting black is very different from that of other colours, for as in these the principal thing is to leave their lights clear and brilliant; so in black, it is to keep the shadows clear and transparent. Therefore begin with the shade tint, and glaze over all the shadows with it. Next lay in the darkest shadows with black and a little of the shade tint, very correctly.

After that, fill up the whole breadth of lights with the middle tint only. All which should be done exactly to the character of the satin, velvet, cloth, &c. &c. and then finish with the high lights.

Here observe, the ground, being red, will bear out and support the reds, which are used in the finishing colours. The lake in the lights takes off the cold hue, and gives it a more beautiful colour. If the shade tint was of any other colour than a transparent warm hue the shadows would consequently be black and heavy, because no other colours can preserve the warm brilliancy which is wanting in the shadows of the black, like lake and brown pink. Black is of a cold heavy nature, and always too strong for any other colour; therefore you should make an allowance in using it. There will be a few reflects in satin, which should be added as those of other colours; but they should be made of strong colours, such as burnt umber, or brown ochre, mixed with a little shade tint.

Though the grounds mentioned for the draperies are absolutely necessary for the principal and nearest figures in a picture, such as a single portrait, or the like; yet for figures which are placed behind the principal or front figures, their grounds should be fainter in proportion to their local finishing colours.

Linen. The colours used in linen are the same as those in white satin, except the first tint, which is made of white and ultramarine ashes, instead of the black, and mixed to a very light bluish tint.

In the dead colouring, take particular care that the grounds are laid very white and broad in the lights. The shadows are made with black, white and a little

Indian red, like the middle tint of white satin. These should be left very light and clean, in order to support the finishing colours.

The second painting begins with glazing all the lights, with a stiff pencil and fine white only, driven bare, without using any oil. The shadows may be scumbled with poppy oil, and some of the colour they were made of. This is the first lay, on which you are to follow with the finishing colours directly. The middle tint of white satin is the best colour for the general hue of the shadows. With this and white, in different degrees, make out all the parts to character, with free light touches, without softening; then, with a large long pointed pencil and fine white, lay the high lights very nicely with one stroke. After this comes the fine light bluish tint, which should be mixed light, and laid in the tender gradations, very sparingly and lightly, without filling them up.

Remember, the first lay should be left clear and distinct; the more it appears, the better. It is the overmixing and joining all the colours together, which spoils the beauty of the character; therefore it is better to let it dry before we add the reflects and finishing tints.

The method of letting the beautiful clear colour dry, before you add the warm reflects, and harmonizing tints, prevents them from mixing and dirting each other.

The principal blending colours used in the reflects are the yellow tint, green tint, and rose tint; which last is made of lake, Indian red, and white. Glazing the pearl and lead-colour with white, though it seems to answer our purpose at the time when it is done, will

certainly sink and be lost in the grounds on which it is laid; therefore you should make the dead-colouring as white as you intend the finishing colours, by reason they will sink a little in proportion to the colour of the cloth, which the glazing with pure white only will recover.

Of painting back grounds.

The principal colours that are necessary for painting of back-grounds, as walls, buildings, or the like, are white, black, Indian red, light and brown ochre, Prussian, and burnt umber; from which the eight principal tints are made, as follows:

1. Pearl is made of black, white, and a little Indian red.

2. Lead, of black and white, mixed to a dead lead colour.

3. Yellow, of a brown ochre and white.

4. Olive, of light ochre, Prussian, and white.

5. Flesh, of Indian red and white, mixed to a middle tint.

6. Murrey, of Indian red, white and a little black mixed to a kind of purple, of a middle tint.

7. Stone, of white, umber, black, and Indian red.

8. Dark shade, of black and indian red only.

Here the lead tint serves for the blues, the flesh tint mixes agreeably with the lead, and the murrey is a very good blending colour, and of great use where the olive is too strong; the umber, white, and dark shade, will produce a fine variety of stone colours; the dark shade and umber, used plentiful with drying oil, make an excellent warm shadow-colour. All the colours should

be laid with drying oil only, because they mix and set the better with the softener.

Where the marks of the trowel are so strong in the priming of the cloth, that one body of colours will not be sufficient to conceal it, lay a colour to prevent it, which should be dry before you begin with those parts you expect to finish at once painting.

Process. The process of painting back-ground is divided into two parts in stages: the first is the work of the first lay, the second that of the finishing tints.

Begin the first lay from the shadowed side of the head, and paint the lights first; from them go into the gradations and shadows, which should be done with a stiffish tool, very sparingly, with the dark shade and white, a little changed with the colours that will give it more of the required hue, but very near in regard to tone and strength, leaving them like mezzotinto.

The dark and warm shadows should be laid before the colours that join them. This do with the dark shade and umber, driven with drying oil. If those colours were laid on first, they would spoil the transparency, which is their greatest beauty. The more the first lay is driven, the easier and better you may change it with the finishing tints, therefore you may lay them with the greater body.

The second part is to follow directly, whilst the first lay is wet, with those tints that are most proper to harmonize and finish with.

Begin with the lights first, and remember, as you heighten and finish them, to do it with warmer colours; and let those be accompanied with fine tender cold tints. The lightest parts of the ground should be painted with

a variety of light warm clear colours, which vanish and lose their strength imperceptibly in their gradations. Take care that you do not cover too much of the first lay, but consider it as the principal colour.

From the lights, go to the gradations and shadows, for when the lights are well adapted to produce and support the figure, it is easy to fall from them into whatever kind of shadows you find most proper; then soften and blend the whole with a long large hog-tool which, with the strength and body of the drying oil, will melt and sweeten altogether, in such a manner, as will seem surprisingly finished. Remember the tints will sink, and lose a little of their strength and beauty in drying. All grounds, as walls, &c. should be finished at once painting; but if they want to be changed, glaze them with a little of the dark shade and drying oil, driven very bare; on which, with a few light touches of the colour that is wanting, you may improve their hue. The dark shadows may also be strengthened and improved by glazing, which should be done after the figures are nearly finished, for fear of making them too strong.

Rembrandt's grounds are rather brighter in the lights and have more variety of tints than other painters, for he had observed, that those tints diminish in proportion with the lights; therefore his shadows have but a faint appearance of tints. He understood the gradations in perfection, by mixing and breaking the first lay of colours so artfully, that they deceive in regard to their real strength.

Vandyck's general method, was to break the colours

of the ground with those of the drapery. This will certainly produce harmony.

Fresnoy says, let the field or ground of the picture be pleasant, free, transient, light and well united with colours which are of a friendly nature to each other; and of such a mixture as that there may be something in it of every colour that compose your work, as it were the contents of your pallet.

Curtains should be dead-coloured when we paint the ground; and should be done with clean colours, of a near hue to the intended curtain, such as will support the finishing colours; do it with a tender sort of keeping and near in regard to their tone in the lights, but much softer in the shadows: all which should be mixed and broken with the colours of the ground. It will often happen, that we cannot make the folds the first painting; we should then leave the masses of light and shadow, in regard to the keeping of the picture, broad and well united together, such as may seem easy to finish on. The colours of the landscape, in back rounds, should be broke and softened also with those of the parts which join them. This method will make all the parts of the ground, as it were, of one piece.

The sky should be broke with the lead and the flesh-tints. The murrey tint is of great use in the grounds of distant objects; and the umber and dark shades in the near grounds. The greens should be more beautiful than you intend them, because they will fade and grow darker. After all is painted, go over the whole very lightly with the softener, as you did the grounds, which will make it look agreeably finished.

Of painting Landscapes.

The principal colours used in landscapes are: 1. flake white; 2. white lead, or common white; 2. fine light ochre; 4. brown ochre; 5. brown pink; 6 burnt umber; 7. ivory black; 8. Prussian blue; 9. ultramarine; 10. terreverte; 11. lake; 12. Indian red; 13. vermilion, or native cinnaber; 14. king's yellow.

The principal tints are, 1. light ochre and white; 2. light ochre, Prussian blue, and white; 3. light ochre and Prussian blue; 4. the same darker; 5. terreverte and Prussian blue; 7. brown pink and brown ochre; 8. brown pink, ochre, and Prussian blue; 9. Indian red and white; 10. ivory-black, Indian red, and lake.

The colours necessary for dead-colouring, are: common white, light ochre, brown ochre, burnt umber, Indian red, ivory black, and Prussian blue.

The principal colours and tints for painting the sky, are, fine white, ultramarine, Prussian blue, light ochre, vermilion, lake, and Indian red.

The tints are, a fine azure, lighter azure, light ochre and white, vermilion and white; and a tint made of white, a little vermilion, and some of the light azure, at your discretion.

Process. Sketch or rub in your design faintly, with burnt umber used with drying oil, and a little oil of turpentine; leaving the colour of the cloth for the lights. Remember, in doing this, to leave no part of the shadows so dark as you intend the first lay or dead-colouring, which also is to be lighter than the finishing colours. Though the foliage of the trees is only rubbed in faintly, yet the trunks and bodies should be in their

proper shapes, with their breadths of light and shadow. All kinds of building should be done in the same manner, leaving the colour of the cloth for their lights. The figures on the fore-ground may also be sketched in the same manner and then left to dry.

First Painting, or dead-colouring.

Let the first lay, or dead-colouring, be without any bright, glaring, or strong dark colours; so that the effect is made more to receive and preserve the finishing colours than to shew them in their first painting.

The sky should be done first, then all the distances; and so work downwards to the middle group, and from that to the fore-ground, and nearest parts. Remember all the parts of each group, as trees, building, or the like, are all painted with the group they belong to.

The greatest secret in dead-colouring is, to find the two colours which serve for the ground of shadows in general, the sky excepted; and the method of using them with the lights; the first of which is the dark shade with a little lake in it; the other colour is only burnt umber. These should be a little changed to the natural hue of the objects, and then laid on with drying oil, in the same manner as we shade with Indian ink, which is a kind of glazing, and as such they should be left; otherwise they will be dark and heavy, and therefore would be entirely spoiled for the finishing glazing. Both these colours mix and sympathize agreeably with all the lights, but should be laid before them.

The sky. The sky should be laid with a good body of colours, and left with a faint resemblance of the prin-

cipal clouds more in the manner of claro obscuro than with finishing colours; the whiter it is left the better it will bear out and support them; the distances should be made out faint and obscurely, with the dark shades, and some of their lights in different degrees, and laid so as best to find and shew their principal parts. All the grounds of the trees should be laid or rubbed in, enough only to leave an idea of their shapes and shadows faintly. The ground of their shadows must be clean and lighter than their finishing colours.

In painting the lights it is better to incline more to the middle tint, than to the very high lights; and observe to leave them with a sufficient body of clean colours, which will preserve the finishing colours better; all which may be done with a few tints. After this, go over the whole with a sweetener very lightly, which will soften and mix the colours agreeably for finishing.

Second Painting.

Begin with the sky, and lay in all the azure, and colours of the horizon; then soften them; after that, lay in the general tint of the clouds, and finish on it with the high lights, and the other tints that are wanting, with the light tender touches; then soften the whole with a sweetener very lightly. The finishing of the sky should be done all at one painting, because the tender character of the clouds will not do so well as when the whole is wet. Observe, that the stiffer the azure and colours of the horizon are laid, the better the clouds may be painted upon them.

The greatest distances are chiefly made with the colour of the sky; as they grow nearer and darker

glaze and scumble the parts very thin, with such glazing shadow-colours as come nearest to the general hue of the group the objects are in. This glazing should be understood of a darkish hue; and that the first painting or dead-colour should be seen through it distinctly. On this lay, or ground, add the finishing colours.

Now suppose this glazed ground properly adapted to the object and place, it will be easy to find the other colours which are wanted for the lights and finishings of the same; but in laying them you must take care not to spoil the glazing; therefore be very exact in making those colours on the pallet, and then be sure to lay them with light free touches.

Before we proceed any farther it will be proper to say something of the most useful glazing colours.

Lake, terreverte, Prussian blue, and brown pink, are the four principal. The more you manage them like Indian ink, and the more distinctly you leave them, the better their transparent beauty will stand and appear, provided you do it with good drying oil. After these four glazing colours, burnt umber is a very good glazing warm brown, and is of great use in the broken grounds and nearest parts; but the most agreeable colour for the darkest shadows, is the dark shade improved with lake. It is a fine warm shade; mixes harmoniously with all the lights, as well as the shadows; and is excellent in the trunks and bodies of trees, and in all kinds of buildings.

Make out all the ground of the objects with such glazing shadow-colours as seem nearest to the natural hue of the object in that situation; but as the principal

glazing colours themselves are often too strong and glaring, they should therefore be a little changed, and softened with such colours as are of a near resemblance to themselves and the objects; thus, if it is in the distances, the terreverte and the azure, which are the principal glazing colours, may be improved and made lighter with some of the sky tints; and as the distance comes nearer with the purple. In the middle group, the terreverte and Prussian blue may be changed with some of the green tints; such as are made without white, for white is the destruction of all glazing colours. As you approach the first group, there is less occasion for changing them; but the foreground and its objects require all the strength and force of glazing, which the colours are capable of producing.

After this glazing ground, follow with strengthening the same in the shadows, and darkest places, in such manner as will seem easy to finish; which is the first lay of the second painting.

The colours that come next for finishing, are in the degree of middle tints: these should be carefully laid over the greatest breadth of lights, in such manner as not to spoil and cover too much of the glazing. Do it with a good body of colour, as stiff as the pencil can agreeably manage. Remember the colours of the middle tint should be of a clean beautiful hue. According to these methods, it will be easy to finish all the second painting down from the sky, through the middle group. As you come to the first group, where all the objects should be perfectly finished, finish their under or most distant parts, before you paint any of the other, which appear nearer. Observe this method down to the last

and nearest objects of the picture: and where it so happens that painting one tree over another does not please, forbear the second until the first is dry. Thin near trees of different colours, will do better, if you let the under parts dry before you add the finishing colours.

Third and last painting.

If oiling is necessary, lay the least quantity that can be; which should be done with a stump tool or pencil proportioned to the place that is to be oiled, so as to oil no more than is wanted; then wipe the whole place that is oiled, with a piece of silk handkerchief.

When going to finish any objects, remember to use a great variety of tints, very nearly of the same colour, but most of all when finishing trees. This gives a richness to the colouring, and produces harmony. The greens will fade, and grow darker; therefore it is highly necessary to improve and force them, by exaggerating the lights, and making an allowance in using them so much the lighter. For the same reason take great care not to overcharge and spoil the beauty of the glazing; for if you do, it will be dull and heavy, and will consequently grow darker.

The method of painting near trees is, to make the first lay very near to nature, though not quite so dark but more in the degree of a middle tint, and follow it with strengthening the shadows; then the middle tints; and last of all lay the high lights and finishing colours. All this cannot be done as it should be, at one painting; therefore the best way is, to do no more than the first lay with the faint shadows, and leave it to dry.

Then begin with improving the middle tints and shadows, and let them dry.

The third and last work is, adding all the lights and finishing colours in the best manner you are able. This method of leaving the first and second parts to dry, separately, not only makes the whole much easier, and more agreeable, but leaves the colours in the greatest perfection; because most of the work may be done with scumbling and glazing, and some parts without oiling. The lights also may be laid with a better body of colour, which will not be mixed and spoiled with the wet ground.

The figures in the landscape are the last work of the picture; those in the fore-ground should be done first, and those in the distances should be done next; for after the figures in the first and farthest group are painted it will be much easier to find the proportions of those in the middle parts of the picture. And observe, that the shadows of the figures, should be of the same hue or colour, with those of the group or place they are in.

CRAYON PAINTING.

WHETHER the painter works with oil colours, water colours, or crayons, the grand object of his pursuit is still the same: a just imitation of nature. But each species has its peculiar rules and methods. Painting with crayons requires in many respects, a treatment different from painting in oil colours; because all colours used dry are, in their nature, of a much warmer

complexion than when wet with oils, or any other binding fluid. Let this be proved by matter of fact.—Mr. Cotes painted a portrait of Sir William Chambers, which is in Lord Besborough's collection. An ingenious foreigner had discovered a method of fixing crayon pictures so that they would not rub or receive an injury if any accident happened to the glass. The Society for the encouragement of arts, had before offered a premium to any one who should discover so valuable a secret, for which premium he made application. Mr. Cotes being eminent in his profession, was desired to lend a picture for the trial, and giving his judgment, which was made on this portrait of Sir William Chambers. The crayons he indeed so perfectly fixed as to resist any rub or brush without the least injury, which before would have entirely defaced or spoiled it; but the picture, which before had a particularly warm, brilliant, and agreeable effect, in comparison became cold and purple, and though in one sense the attempt succeeded to the designed intention of fixing the colours, yet the binding quality of whatever fluid was made use of in the process, changed the complexion of the colours, rendering the cold tints too predominant. For this reason in order to produce a rich picture, a much greater proportion of what painters term cooling tints must be applied in crayon painting, than would be judicious to use in oils. Without any danger of a mistake, it is to be supposed, th not being acquainted with this observation is one great cause why so many oil painters have no better success when they attempt crayon painting. On the contrary, crayon painters being so much used to those tints which are of a cold nature when used wet are apt

to introduce them too much when they paint with oils, which is seldom productive of a good effect.

Another observation I would make, which requires particular notice from the student who has been conversant with oil painting, prior to his attempts with crayons; oil painters begin their pictures much lighter and fainter than they intend to finish them, which presents the future colouring clear and brilliant, the light underneath greatly assisting the transparent glazing and scumbling colours, which if they were laid over any part already too dark, would but increase its heavy effect. On the contrary, crayons being made of dry colours, are difficult to procure sufficiently dark, the crayon painter will find an absolute necessity to begin his picture as dark and rich as possible, except in the strongest lights; for if once the grey and light tints become predominant, it will be next to impossible for him (in the deep shadows especially) to restore depth and brilliancy, having no opportunity of glazing or scumbling to give the effect, as the grey tints being mixtures with whiting underneath, will continually work up and render the attempt abortive.

We shall now endeavour to give the student some directions towards the attainment of excellence in this art.

The student must provide himself with some strong blue paper, the thicker the better, if the grain is not too coarse and knotty, though it is almost impossible to get any entirely free from knots. The knots should be levelled with a penknife or razor, otherwise they will prove exceedingly troublesome. After this is done, the paper must be pasted very smooth on a linen cloth previously strained on a deal frame, the size according to

the artist's pleasure; on this the picture is to be executed, but it is most eligible not to paste the paper on till the whole subject is first dead-coloured. The method of doing this is very easy, by laying the paper with the dead colour on its face, upon a smooth board or table, when by means of a brush the back side of the paper must be covered with paste; the frame, with the strained cloth, must then be laid on the pasted side of the paper; after which turn the painted side uppermost, and lay a piece of clean paper upon it, to prevent smearing; this being done, it may be stroked gently over with the hand, by which means all the air between the cloth and the paper will be forced out.

When the paste is perfectly dry, the student may proceed with the painting. The advantages arising from pasting the paper in the frame, according to this method, after the picture is begun, are very great, as the crayons will adhere much better than any other way, which will enable the student to finish the picture with a firmer body of colour, and greater lustre. The late Mr. Cotes discovered this method by accident, and esteemed it a valuable acquisition; and, I remember, on a particular occasion, he removed a fine crayon picture of Rozalba's, and placed it on another strained cloth without the least injury, by soaking the canvass with a wet sponge, till the paste between the cloth and paper was sufficiently wet to admit of separation.

When painters want to make a very correct copy of a picture they generally make use of a tiffany, or black gauze, strained tight on a frame, which they lay flat on the subject to be imitated, and with a piece of sketching chalk, trace all the outlines on the tiffany.

They then lay the canvass to be painted on flat upon the floor, placing the tiffany with the chalked lines upon it, and with a handkerchief brush the whole over: this presents the exact outlines of the picture on the canvas. The crayon painter may also make use of this method when the subject of his imitation is in oils, but in copying a crayon picture, he must have recourse to the following method, on account of the glass:

The picture being placed upon the esel, let the outlines be drawn on the glass, with a small camel's hair pencil dipped in lake, ground thin with oils, which must be done with great exactness; after this is accomplished, take a sheet of paper of the same size, and place it on the glass, stroking over all the lines with the hand, by which means the colours will adhere to the paper, which must be pierced with pin holes pretty close to each other. The paper intended to be used for the painting must be next laid upon a table and the pierced paper placed upon it; then with some fine pounded charcoal, tied up in a piece of lawn, rub over the perforated strokes, which will give an exact outline. Great care must be taken not to brush this off till the whole is drawn over with sketching chalk, which is a composition made of whiting and tobacco-pipe clay, rolled like crayons, and pointed at each end.

When the student paints immediately from the life, it will be most prudent to make a correct drawing of the outlines on another paper, the size of the picture he is going to paint, which he may trace by the preceding method, because erroneous strokes of the sketching chalk (which are not to be avoided without great expertness) will prevent the crayons from adhereing to the

paper, owing to a certain greasy quality in the composition.

The student will find the sitting posture, with the box of crayons on his lap, the most convenient method for him to paint. The part of the picture he is immediately painting should be rather below his face, for if it is placed too high, the arm will be fatigued. Let the windows of the room where he paints be darkened at least to the height of six feet from the ground, and the subject to be painted should be situated in such a manner, that the light may fall with every advantage on the face; avoiding too much shadow, which seldom has a good effect in portrait painting, especially if the face he paints has any degree of delicacy. Before he begins to paint, let him be attentive to his subject, and appropriate the action or attitude proper to the age of the subject: if a child, let it be childish; if a young lady, express more vivacity than in the majestic beauty of a middle aged woman, who also should not be expressed with the same gravity as a person far advanced in years. Let the embellishments of the picture, and introduction of birds, animals, &c. be regulated by the rules of propriety and consistency.

The features of the face being carefully drawn with chalk, let the student take a crayon of pure carmine and carefully draw the nostril and edge of the nose, next the shadow; then with the faintest carmine tint, lay in the strongest light upon the nose and forehead, which must be executed broad. He is then to proceed gradually with the second tint, and the succeeding ones, till he arrives at the shadows, which must

be covered brilliantly, enriched with much lake, carmine a little broken with brilliant green. This method will at first offensively strike the eye, from its crude appearance; but, in finishing, it will be a good foundation to produce a pleasing effect, colours being much more easily sullied when too bright, than when the first colouring is dull, to raise the picture into a brilliant state. The several pearly tints discernable in fine complexions, must be imitated with blue verditer and white, which answer to the ultramarine tints used in oils. But if the parts of the face where these tints appear are in shadow, the crayons composed of black and white must be substituted in their place.

Though all the face, when first coloured, should be laid in as brilliant as possible, yet each part should be kept in its proper tone, by which means the rotundity of the face will be preserved.

Let the student be careful when he begins the eyes to draw them with a crayon inclined to the carmine tint; of whatever colour the iris are of, he must lay them in brilliant, and, at first, not loaded with colour, but executed lightly; no notice is to be taken of the pupil yet. The student must let the light of the eye incline very much to the blue cast, cautiously avoiding a staring, white appearance, (which when once introduced, is seldom overcome) preserving a broad shadow thrown on its upper part, by the eye-lash. A black and heavy tint is also to be avoided in the eye-brows; it is therefore best to execute them like a broad glowing shadow at first, on which, in the finishing, the hairs of the brow are to be painted, by which method

of proceeding, the former tints will shew themselves through, and produce the most pleasing effect.

The student should begin the lips with pure carmine and lake, and in the shadow use some carmine and black; the strong vermilion tints should be laid on afterwards. He must beware of executing them with stiff, harsh lines, gently intermixing each with the neighbouring colours, making the shadow beneath broad, and enriched with brilliant crayons. He must form the corner of the mouth with carmine, brown oker, and greens, variously intermixed. If the hair is dark, he should preserve much of the lake and deep carmine tint therein; this may be easily overpowered by the warmer hair tints, which, as observed in painting the eye-brows, will produce a richer effect when the picture is finished; on the contrary, if this method is unknown or neglected, a poverty of colouring will be discernable.

After the student has covered over, or, as artists term it, has dead-coloured the head, he is to sweeten the whole together by rubbing it over with his finger, beginning at the strongest light upon the forehead, passing his finger very lightly and uniting it with the next tint, which he must continue till the whole is sweetened together, often wiping his finger on a towel, to prevent the colours being sullied. He must be cautious not to smooth or sweeten his picture too often, because it will give rise to a thin and scanty effect, and have more the appearance of a drawing than a solid painting, as nothing but a body of rich colours can constitute a rich effect. To avoid this, (as the

student finds it necessary to sweeten with the finger) he must continually replenish the picture with more crayon.

When the head is brought to some degree of forwardness, let the back ground be laid in, which must be treated in a different manner, covering it as thin as possible, and rubbing it into the paper with a leather stump. Near the face the paper should be almost free from colour, for this will do great service to the head, and, by its thinness, give both a soft and solid appearance. In the back ground also, crayons which have whiting in their composition should be used, but seldom or never without caution; but chiefly such as are the most brilliant and the least adulterated. The ground being painted thin next the hair, will give the student an opportunity of painting the edges of the hair over in a light and free manner, when he gives the finishing touches.

The student having proceeded thus far, the face, hair, and back ground being entirely covered, he must carefully view the whole at some distance, remarking in what respect it is out of keeping, that is, what parts are too light, and what too dark, being particularly attentive to the white or chalky appearances, which must be subdued with lake and carmine. The above method being properly put into execution will produce the appearance of a painting principally composed of three colours, viz. carmine, black and white, which is the best preparation a painter can make for producing a fine crayon picture.

The next step is to complete the back ground and the hair, as the dust, in painting these, will fall on

the face, and would much injure it, if that was completed first. From thence proceed to the forehead, finishing downward, till the whole picture is completed.

Back grounds may be of various colours; but it requires great taste and judgment to suit them properly to different complexions; in general, a strong coloured head should have a tender tinted ground, and, on the contrary, a delicate complexion should be opposed with strong and powerful tints; by which proper contrast between the figure and the back ground, the picture will receive great force, and strike the spectator much more than it could possibly do was this circumstance of contrast not carefully attended to.

Young painters often treat the back grounds of pictures as a matter of very little or no consequence, when it is most certain great part of the beauty and brilliancy of the picture, especially the face, depends upon the tints being well suited, the darks kept in their proper places, and the whole being perfectly in subordination to the face. Thus a simple back ground requires attention, but the difficulty is still greater when a variety of objects are introduced, such as hills, trees, buildings, &c. in these cases one rule must be strictly regarded, that each grand object be so disposed as to contract each other; this is not meant merely respecting their forms, but their colour, their light, shade, &c. For instance, we will suppose the figure receiving the strongest light; behind the figure, and very near at hand, are the stems of some large trees, these must have shade thrown over them, either from

a driving cloud or some other interposing circumstance; behind these stems of trees, and at a distance, are seen trees on a rising ground; these should receive the light as a contrast to the former, &c. If an architectural back ground be chosen, the same rule must be applied: suppose a building at a moderate distance is placed behind the figure receiving the light, a column or some other object in shadow should intervene, to preserve proper decorum in the piece, or what will have the same effect, a shadow must be thrown over the lower part of the building, which will give equal satisfaction or repose to the eye. It will be remembered, the light must always be placed against the dark, and the weak against the strong, in order to produce force and effect, and *vice versa*.

In painting over the forehead the last time, begin the highest light with the most faint vermilion tint, in the same place where the faint carmine was first laid, keeping it broad in the same manner. In the next shade succeeding the lightest, the student must work in some light blue tints, composed of verditer and white, intermixing with them some of the deeper vermilion tints, sweetening them together with great caution, insensibly melting them into one another, increasing the proportion of each colour as his judgment shall direct. Some brilliant yellows may also be used, but sparingly; and towards the roots of the hair, strong verditer tints, intermixed with greens, will be of singular service. Cooling crayons, composed of black and white, should succeed these, and melt into the hair. Beneath the eyes, the pleasing pearly tints are to be preserved, composed of

verditer and white, and under the nose, and on the temples, the same may be used; beneath the lips tints of this kind also are proper, mixing them with the light greens and some vermilion.

The introduction of greens and blues into the face in painting, has often given surprise to those who are unacquainted with the art, but there is reason sufficient for their introduction (though it may appear strange at first) in order to break and correct the other colours.

The carmine predominating in the dead colour, is, as has been observed, the best preparation for the succeeding tints; the crudeness of this preparation must be corrected by variously intermixing greens, blues, and yellows; which of these are to be used is to be determined by the degree of carmine in the dead colour, and the complexion intended. The blue and yellow are of a nature diametrically opposite, and serve to correct the reds, and oppose one another; the greens being compounded of both these colours, is of peculiar use in many cases where the transition is not to be so violent.

The student, attentively considering nature, will discover a pleasing variety of colours on the surface, and discernible through a clear and transparent skin; this variety will be still increased by the effect of light and shade; he will perceive one part inclining to the vermilion red, another to the carmine or lake, one to the blue, this to the green, and that to the yellow, &c. In order to produce these different effects he will apply those colours to which the tints are most inclined; yet in crayon painting it is often best to compound the

mixed colours upon the picture, such as blue and yellow instead of green; blue and carmine instead of purple; red and yellow instead of orange; in other circumstances the compounds already mixed should be used; but in this case there can be no absolute rule given, it must be left to the experience and discretion of the painter, though the student may be greatly assisted in the commencement of his studies, by an able master to direct and point out the best method to treat circumstances of this nature, as they occur in practice, which may appear at first obscure and mysterious, but will soon to a good capacity, become demonstrably clear upon certain and sure principles; the circumstances that require different treatment are so various and so many, as to render it impossible here to descend to every particular.

In finishing the cheeks, let the pure lake clear them from any dust contracted from the other crayons; then, with the lake, may be intermixed the bright vermilion; and last of all (if the subject should require it) a few touches of the orange-coloured crayon, but with extreme caution; after this sweeten that part with the finger as little as possible, for fear of producing a heavy, disagreeable effect on the cheeks: as the beauty of a crayon picture consists in one colour shewing itself through, or rather between another; this the student cannot too often remark, it being the only method of imitating beautiful complexions.

The eye is the most difficult feature to execute in crayons, as every part must be expressed with the utmost nicety, to appear finished; at the same time that the painter must preserve its breadth and solidity,

while he is particularizing the parts. To accomplish this, it will be a good general rule for the student to use his crayon, in sweetening, as much, and his finger as little as possible. When he wants a point to touch a small part with, he may break off a little of his crayon against the box, which will produce a corner fit to work with in the minutest parts. If the eye-lashes are dark, he must use some of the carmine and brown oker, and the crayon of carmine and black, and with these he may also touch the iris of the eye (if brown or hazel) making a broad shadow caused by the eye-lash. Red tints of vermilion, carmine and lake, will execute the corners of the eye properly; but if the eye-lids are too red, they will have a disagreeable sore appearance. The pupil of the eye must be made of pure lamp-black; between this and the lower part of the iris, the light will catch very strong, but it must not be made too sudden, but be gently diffused round the pupil till it is lost in shade. When the eye-balls are sufficiently prepared, the shining speck must be made with a pure white crayon, which should be first broken to a point, and then laid on firm; but as it is possible they may be defective in neatness, they should be corrected with a pin, taking off the redundant parts, by which means they may be formed as neat as can be required.

The difficulty, with respect to the nose, is to preserve the lines properly determined, and at the same time so artfully blended into the cheek as to express its projection, and yet no real line to be perceptible upon a close examination; in some circumstances it should be quite blended with the cheek which appears behind it, and determined entirely with a slight touch of red chalk.

The shadow caused by the nose is generally the darkest in the whole face, partaking of no reflection from its surrounding parts. Carmine and brown oker, carmine and black, and such brilliant crayons, will compose it best.

The student having before prepared the lips with the strongest lake and carmine, &c. must, with these colours, make them completely correct; and, when finishing, introduce the strong vermilions, but with great caution, as they are extremely predominant: This, if properly touched, will give the lips an appearance equal, if not superior to those executed in oils, notwithstanding the seeming superiority the latter has, by means of glazing, of which the former is entirely destitute.

When the student paints the neck, he should avoid expressing the muscles too strong in the stem, nor should the bones appear too evident on the chest, as both have an unpleasing effect, denoting a violent agitation of the body, a circumstance seldom necessary to express in portrait painting. The most necessary part to be expressed, and which should ever be observed, (even in the most delicate subjects) is a strong marking just above the place where the collar bones unite, and if the head is much thrown over the shoulders, some notice should be taken of the large muscle that rises from behind the ear, and is inserted into the pit between the collar bones. All inferior muscles should be, in general, quite avoided. The student will find this caution necessary, as most subjects, especially thin persons, have the muscles of the neck much more evident than would be judicious to imitate. As few necks

are too long, it may be necessary to give some addition to the stem, a fault on the other side being quite unpardonable, nothing being more ungraceful than a short neck. In colouring the neck, let the student preserve the stem of a pearly hue, and the light not so strong as on the chest. If any part of the breast appears, its transparency must also be expressed by pearly tints, but the upper part of the chest should be coloured with beautiful vermilions, delicately blended with the other.

Of the Materials used in Crayon Painting.

The perfection of the crayons consists, in a great measure, in their softness, for it is impossible to execute a brilliant picture with them if they are otherwise; on which account great care should be observed in the preparing them, to prevent their being hard.—In all compositions, flake white, and white lead should be always rejected, because the slightest touch with either of these will unavoidably turn black.

The usual objection to crayon paintings is, that they are subject to change, but whenever this happens it is entirely owing to an injudicious use of the above-mentioned whites, which will stand only in oils. To obviate the bad effects arising from the use of such crayons, let the student make use of common whiting prepared in the following manner:

Take a large vessel of water, put the whiting into it, and mix them well together; let this stand about half

a minute, then pour off the top into another vessel, and throw the gritty sediment away; let what is prepared rest about a minute, and then pour it off as before, which will purify the whiting, and render it free from all dirt and grittiness. When this is done, let the whiting settle, and then pour the water from it; after which lay it on the chalk to dry, and keep it for use, either for white crayons, or the purpose of preparing tints with other colours, for with this all other tints may be safely prepared.

The student must be provided with a large, flexible pallette knife, a large stone and muller to levigate the colours, two or three large pieces of chalk to absorb the moisture from the colours after they are levigated, a piece of flat glass to prevent the moisture from being absorbed too much till the colours are rolled into form, and vessels for water, spirits, &c. as necessity and convenience shall direct.

Reds.

Carmine and lake. It is rather difficult to procure either good carmine or good lake. Good carmine is inclined to the vermilion tint, and should be an impalpable powder, and good lake to the carmine tint. The carmine crayons are prepared in the following manner:

As their texture is inclinable to hardness, instead of grinding and rolling them, take a sufficient quantity of carmine, lay it upon the grinding stone, mix it with a levigating knife with spirits of wine, till it becomes smooth and even; yet the less friction produced by the knife the better. The chalk stone being ready, lay the

colour upon it to absorb the spirit, but be careful that it is laid on in a proper shape for painting.

The simple colour being prepared, the next step is to compose the different tints by a mixture with whiting; the proportion to be observed consisting of twenty gradations, to one, which may be clearly understood by the following directions:—Take some of the simple colour, and levigate it with spirits of wine, adding about one part of washed whiting to three parts of carmine, of which, when properly incorporated, make two parcels. The next gradation should be composed of equal quantities of carmine and whiting, of which four crayons may be made. The third composition should have one fourth carmine, and three fourths whiting; of this make six crayons, which will be a good proportion with the rest. The last tint should be made of whiting, very faintly tinged with carmine, of which make about eight crayons, which will complete the above-mentioned proportion.

N. B. Though these tints made with whiting may be rolled, yet the pure carmine will not bear it, but must be left on the chalk stone till perfectly dry.

Lake is a colour very apt to be hard; to prevent which the student must observe the following particulars:

Take about half the quantity of lake intended for the crayons, and grind it very fine with spirits of wine; let it dry, and then pulverize it, which is easily done if the lake is good; then take the other half and grind it with spirits; after which mix it with the pulverized lake, and lay it out directly in crayons on the chalk. The colour will not bear rolling. The simple colour

being thus prepared, proceed with the compound crayons as directed before, and in the same degree of gradation as the carmine tints.

Vermilion, or Native Cinnabar. The best is inclined to the carmine tint. To prepare this colour, mix it on the stone with soft water, or spirits after which it may be rolled into crayons.

Blues.

Prussian Blue is a colour very apt to bind, and is rendered soft with more difficulty than carmine and lake. The same method of preparation is to be followed with this as is directed with respect to lake, only it is necessary to grind a larger quantity of the pure colour, as it is chiefly used for painting draperies.

Blue Verditer is a colour naturally gritty, and therefore it is necessary to wash it well. Its particles are so coarse as to require some binding matter to unite them, otherwise the crayons will never adhere together. To accomplish this, take a quantity sufficient to form two or three crayons, to which add a piece of slacked plaister of Paris about the size of a pea; mix these well together, and form the crayons upon the chalk. This blue is extremely brilliant, and will be of great use in heightening draperies, &c.

Greens. Brilliant greens are produced with great difficulty, which may be procured of those who make it their business to prepare them; yet the following compositions will be found useful: Take yellow oker, and after grinding it with spirits, mix it with the powder of Prussian blue; then temper it with a knife, and

lay the crayons on the chalk without rolling them; besides this use king's yellow, mixed with Prussian blue, brown oker, and Prussian blue. The crayons made of these last may be rolled.

YELLOWS.

King's Yellow is the most useful and most brilliant, levigated with spirits of wine and compose the different tints as before directed. Yellow oker, and Naples yellow, ground with spirits will make useful crayons.

Orange is produced with king's yellow and vermilion, ground together with spirits, and the tints formed as in other cases; but no great quantity of them is required.

BROWNS.

Culen's Earth is a fine dark brown. After six or eight of the simple crayons are prepared, several rich compound tints may be produced from it, by a mixture with carmine in various degrees: black, carmine, and this colour mixed together, make useful tints for painting hair; several gradations may be produced from each of these by a mixture with whiting.

Umber. May be treated in just the same manner, only it is necessary to levigate it with spirits of wine.

Purples. Prussian blue ground with spirits, and mixed with pulverized lake, will produce a good purple. Carmine thus mixed with Prussian blue will produce a purple something different from the former.

Various tints may be made from either of these compounds by a mixture with whiting.

BLACK.

Lamp-Black is the only full black that can be used with safety, as all others are subject to mildew.

Cinnabar mixed with Carmine.—This is a composition of great use, and tints made from this with whiting will be found very serviceable.

Carmine and black is another good compound, of which five or six gradations should be made, some partaking more of the black, and others having the carmine most predominant, besides several tints by a mixture with whiting.

Cinnabar and black is also a very useful compound, from which several different tints should be made.

Prussian blue and black is another good compound and will be found of singular service in painting draperies.

It is impossible to lay down rules for forming every tint necessary in composing a set of crayons, there being many accidental compositions entirely dependent on fancy and opinion. The student should make it a rule to save the leavings of his colours, for of these he may form various tints which will occasionally be useful.

Of rolling the Crayons and disposing them for Painting.

The different compositions of colours must be cut into a proper magnitude after they are prepared, in order to be rolled into pastils, for the convenience of using them. Each crayon should be formed in the

left hand with the ball of the right, first formed cylindrically, and then tapered at each end. If the composition is too dry, dip the finger in water; if too wet the composition must be laid upon the chalk again to absorb more of the moisture. The crayons should be rolled as quick as possible, and when finished, must be laid upon the chalk again to absorb all remaining moisture. After the gradation of tints from one colour is formed, the chalk and the grinding-stone should be well scraped and cleansed with water before it is used for another colour.

When the set of crayons is completed according to the rules prescribed, they should be arranged in classes for the convenience of painting with them. Some thin drawers divided into a number of partitions, is the most convenient method of disposing them properly. The crayons should be deposited according to the several gradations of lights. The bottom of the partitions must be covered with bran, as a bed for the colours, because it not only preserves them clean, but prevents their breaking.

The box made use of when the student paints, should be about a foot square, with nine partitions. In the upper corner, on the left hand, (supposing the box to be in the lap when he paints) let him place the black and grey crayons, (those being the most seldom used;) in the second partition, the blues; in the third the greens and browns; in the first partition on the left hand of the second row, the carmines, lakes, vermilions, and all deep reds; the yellows and orange in the middle; and the pearly tints next; and these last are of a very delicate nature, they must be kept very

clean, that the gradations of colours may be easily distinguished: in the lowest row, let the first partition contain a piece of fine linen rag to wipe the crayons with while they are using; the second, all the pure lake and vermilion tints; and the other partitions may contain those tints, which from their complex nature cannot be classed with any of the former.

MINIATURE PAINTING.

The art of painting in miniature is of very antient date. It is practised either on vellum or ivory.

The best method, in painting on vellum, is to glue the edge of the vellum to a copper-plate or board, over which it is strained in this manner: Let your vellum be every way a finger's breath larger than what you strain it on. Moisten the fair side of the vellum with a piece of fine wet linen, and put a piece of white paper to the other side. Then apply it to the plate or board, stretching it equally in all directions, lap the edges nicely round and glue them, taking care to let no glue pass under the part of the vellum on which you mean to paint. When the glue dries, and the edges of your vellum are thus fastened, you may proceed with your work; or you may (agreeable to the practice of some painters,) previously give the vellum a light wash of white lead well purified, to serve as a ground.

But ivory, being the material most frequently used at present for paiuting in miniature, we shall here give the most approved rules for painting on ivory.

It is scarcely necessary to remark, that the first essential point towards excellence in this as in all other branches of painting, is a thorough and well grounded knowledge in drawing, both from plaister, and from the life; without correctness of drawing the greatest brilliancy of tints will at last be unsatisfactory. We should therefore recommend to the student in miniature, to continue, at his leisure hours, to copy from large drawings or busts, in chalks or water-colours, as correctly as possible, which is the best means of giving facility to the hand in the drawing of smaller figures.

Painting in miniature is of all others the most delicate and tedious in its process, being performed wholly with the point of the pencil. It is only fitted for works of a small size, and must be viewed near.

Colours used in Miniature Painting.

In painting the face, the yellows that are used are five, viz. galls-tone, terra sienna, Nottingham ochre, Roman ochre, and Naples yellow; the latter three of which are opaque colours, the other transparent. The greens are confined to one, which is sap-green. The blues are verditer, Prussian indigo, smalt, ultramarine and Antwerp. The reds are carmine, drop lake, Chinese vermilion, and Indian red. Under the class of reds, may also be put burnt terra Sienna, its

colour inclining much that way, though more to the orange. The only browns, if any are used in the face are burnt umber and terra de Cassel, and they are only to be used in the mixture of dark shades.

For painting draperies, we shall only add to the above colours, lamp-black, king's yellow, and flake white.

Gum water. Choose the large white pieces of gum arabic, which are brittle and clear. Put them into a clean phial; and pour water on them, well-strained and divested of all sandy particles. Let the gum water be about the thickness of water-gruel, that is, so thick that you can feel it in your fingers. The fresher made, the better.

Grinding the colours, and preparing them for the pallet.

PROVIDE yourself, if possible, with an agate flag and muller; but if that cannot conveniently be had glass ones may answer, though not quite so well The glass muller and flag must be lightly roughened with fine flour emery, which will give it a surface that will continue a long time. After being particularly careful that your flag, &c. are quite clean, lay some of the colour to be ground on it, bruising it whilst dry, gently with the muller; then put a few drops of water on it, and grind it very carefully, not making it too wet, as that will prevent it from keeping sufficiently under the muller. When you think it is finely ground in the water, take your pallet-knife, or a thin-edged piece of ivory, scrape your colour altogether in

a little heap on your flag, which let dry for a short time, then add your gum-water to it gradually, having a piece of ivory near you, on which you are frequently to lay some of the colour with a camel-hair pencil, thin: and if you perceive the colour in the smallest degree to shine, when dry, it is gummed enough, then you are to scrape it off your flag and transfer it to your pallet.

There are some colours which will not bear a sufficient quantity of gum to make them shine, without injuring their qualities, as smalt, ultramarine, and verditer blues.

Of hair pencils. Manner of choosing them, &c.

Pencils for painting in miniature are not made of camel's hair, but of the tips of squirrel's tails, and of these there are two kinds, the dark brown, and yellowish red. Pencils made of the latter kind are called sable pencils, and are of a stiffer nature than the others. They are a useful kind of pencil, as long as the fine flue at the end of the hair remains, on account of their elasticity; but the instant the flue is worn off, they, from their harshness, become useless; at all events, no pencil can be superior to one made of the common kind of hair. The error too prevalent amongst young miniature painters, is that of preferring a very small pencil for their work, vainly hoping by the assistance of such a one, to execute their picture with more neatness and accuracy; but in this they will, by experience, find themselves mistaken; the finest and most highly finished picture being executed with a middle-sized pencil, the point of which

being not only sufficiently neat, but from its body containing a quantity of colour in fluid, enables the artist to give that mellow firm touch which is so generally admired by connoisseurs in the art. The young artist should choose a middle-sized pencil, with a good spring and point, both of which he will know by drawing the pencil lightly through his mouth, and touching it on his thumb-nail; if he finds it, on being moderately wet, to spring again into its form, after being bent, it is a good sign; but as there are many pencils possessed of that quality, which are deficient in another material one, namely, that of a good point, that must be very cautiously looked to, by turning the pencil round on the nail, in every direction, observing the hairs at the point keep equally together of a length, and none shooting out on either side (which is often occasioned by the pencil-maker putting the hair into the quill with a twist in it). All these defects being carefully guarded against, you are sure of being in possession of a very principal material for miniature painting.

Ivory,

Method of choosing, bleaching, and preparing it.

Of ivory there are various kinds, the distinction of which in this art is of very material consequence. Ivory, newly cut, and full of sap, is not easily to be judged of; the general transparency it exhibits in that state, almost precluding the possibility of discovering whether it is coarse-grained or fine, streaky or the contrary, unless to the artist who, by a long course of experience, is familiarised to it. The best way to discover

the quality of it is, by holding it grainways to the light, then holding it up and looking through it, still turning it from side to side, and very narrowly observing whether there are any streaks in it; this you will, unless the ivory is very freshly cut, easily discover; and in this you cannot be too particular. There is a species of ivory which is very bad for painting on, although it has no streaks in it, being of a horny coarse nature, which will never suffer the colours to be thrown out in the brilliant manner a fine species of ivory will; you are therefore not only to be cautious in choosing ivory free from streaks, but likewise that which has the finest grain and close. We shall now proceed to treat on the manner of preparing the ivory for painting on.

You are to heat a smoothing iron in so small a degree that you can hold your hand on the face of it, so long as you can reckon three or four in moderate time: then put your ivory between a clean piece of folded paper, on which place the hot iron, turning your ivory frequently, until it becomes a transparent white: for you are to observe that very particularly, an opaque white not answering for face-painting in miniature, as it would give a harshness and unpleasant appearance to your picture.

When you think your ivory is sufficiently white for your purpose, lay it under some flat weight until it cools, as that will prevent its warping. Then proceed to prepare it: for which purpose you must pound some pumice-stone in a mortar, as clear and as fine as you can, which put into a fine linen or cambric bag, tying it about midway, tight, but leaving room for the

pumice-dust to sift through the bottom. Then get a long mustard-bottle, perfectly clean and dry, in which suspend the pumice-duct, covering the top with the muzzle of the bag, so that nothing can come out, then shake the bottle smartly in your hand, when the fine particles of the pumice will sift out, and remain at the bottom of the bottle, thereby preventing any coarse grains from being amongst what you are going to use, which would very materially injure your ivory. Your pumice-dust being prepared, scrape the leaves of ivory with a sharp pen-knife, until the scratches of the cutting saw are entirely obliterated; then take either a piece of Dutch polishing rush, or a piece of middling fine patent glass paper, and carefully polish your ivory with it, not by passing your hand backwards and forwards, but in a circular manner, until you have it pretty level; then strew some of your pumice-dust on the ivory, and put a few drops of water on it: which done, with your muller work on it in a circular manner as before, until you find every part has equally received the pumice, which you will know by its exhibiting a dead grave appearance: those parts which have not received the pumice continuing to shine in spots, which you must still labour to do away with your pumice and muller. When you find it pumiced to your satisfaction, take a clean sponge and fair water, with which gently wash your ivory free from the pumice-dust; taking care not to rub it hard, for fear of giving the ivory a gloss that would prevent your colours from taking on it so pleasant as you could wish; after this lay your ivory to dry, and in a few hours it will be fit for use. Then paste it on a piece of wove paper, by

touching the back of it merely at the edges; as gum-water, or any other cement, being put near the centre of your ivory, will cause a dark unpleasant spot perhaps to appear through, in the very part where your face is to be painted.

Instructions for mixing compound tints for the face.

Purple is formed of either ultramarine, Prussian blue, smalt, or indigo, mixed with either carmine or drop lake. Ultramarine, although the most beautiful and brilliant of colours by itself, yet in any mixture it loses that perfection, but still retains a sufficient share of brightness to render it a desirable tint in the purplish grey shadows of the face. Prussian blue mixed as before-mentioned, makes a bright or dark purple according as the quantities of either colours are portioned; but indigo makes still darker, owing to its great natural depth of colour. Smalt and carmine, or lake, form nearly the same tint as ultramarine, and may be used nearly for the same purpose.

Grey. Of grey tints there are various kinds, according to the subjects they are required for. A warm grey tint may be made by duly portioning burnt terra Sienna, Prussian blue, and drop lake: the more terra Sienna in it, the warmer the tint; the more Prussian blue and lake, the colder. Another grey tint, used with success by some eminent miniature painters, was composed of Prussian blue and Chinese vermilion, but on account of the unkind manner with which vermilion incorporates with any other colour, it required a greater proportion of gum than ordinary to make them work or keep together. A third grey

tint, which is an excellent one, is formed of drop lake, sap green, and Prussian blue.

Olive tints. A very fine olive tint is formed of gall stone, Nottingham ochre, and carmine, or lake: and another of sap green and lake simply.

Of hair tints. A beautiful hair colour, either dark or light, according to the quantities of colours, is made of carmine, lamp-black, and sap green. The manner of forming it is only to be acquired by practice: but when once attained, will be found worth the time of the trial. That very difficult tint which is often to be met with in children's hair, by the proper junction of these colours will be produced to perfection. Other hair tints may be made of terra de Cassel simply, or by the addition of lamp-black. Some excellent painters make all their hair tints of burnt terra Sienna, lamp-black, and Nottingham ochre, the latter being added only when there is light hair wanting to be represented. Burnt umber has been substituted for terra Sienna, along with the lamp-black, and forms a good tint; but care must be taken to avoid either the greenish or reddish cast, which it is apt to produce.

Tints for fine linen, gauze, &c. Of all tints in transparent painting, such as are the miniature works of the present day, there are none more difficult to ascertain: for the delicacy not only of mixture, but the delicacy of touch, conveys the idea of beauty in the thinness and folding of fine linen or gauze, the true painting of which throws a veil over the defects in other parts of the picture. We shall therefore only observe, that any of the tints, under the head of grey

will, properly managed, answer the purpose. Having now pointed out the manner of preparing the delicate transparent tints for miniature painting, we proceed to treat of the grosser ones, namely, those for draperies.

Of colours proper for men's draperies.

We shall, under this head, make some general observations; the first of which is, that in all cloth draperies for men's portraits, it is necessary to add some flake white; as it not only gives the colour the dead appearance which cloth exhibits, but likewise its being incorporated with the flake white, gives it a body which makes the flesh tints appear to more advantage. The next observation is, that in grinding up your draperies, you are to make them appear several degrees lighter in colour than you want them to be when dry, for this reason; the flake white is a colour so very heavy, that, after you float in your coat, it will sink to the bottom, and leave your colours several degrees darker than when it was wet; and finally you are not to be too heavy or thick in floating in your draperies, but merely to see that your colour is evenly spread over the part.

There are four modes of working in miniature painting; namely, floating, washing in, handling, and marking. The first process, which is floating, and is chiefly used for draperies, is thus performed: Having marked with your pencil where your drapery is to be, grind up your colour on your flag (not putting a quantity of gum water, that would make it shine, as it would frustrate your purpose); then take a large soft

hair pencil, and, having previously laid your ivory on a very level table, fill your pencil plentifully with the colour, and lay it quick all over the parts of the ivory you want covered, seeing that it runs on every part equally, which, if kept in a proper fluid state, it will readily do; then lay it in some place to dry, where it is not likely to receive dust, when you will have a fine level surface ready to work the shadows of your drapery on in a couple of hours. Washing in is performed when your picture is on your desk, by filling your pencil moderately with colour, and giving a very broad stroke rather faintly, as the contrary would not answer: this manner is chiefly used in beginning the lesser back grounds, and likewise in laying on the general flesh tint of the face. It is also used in the first touches of the dark shadows, which ought to be begun faint and broad. Handling is the manner in which all the fleshy parts of the miniature must be worked, after the first washing in; and lastly marking consists in the sharp-spirited touches given to the different features, in order to give that animated appearance so necessary to constitute a fine picture.

Black drapery is formed of lamp-black burnt, and flake white; and must be laid in with a good deal of the latter, as otherwise it would be very difficult to manage the shadows so as to produce a pleasing effect.

Blue drapery may be made of either Prussian blue or Antwerp blue, mixed with white; indigo being too much inclined to a blackish cast.

Green drapery is well made, of king's yellow and

Prussian and Antwerp blue. The more blue, the darker the green; and the more yellow the contrary.

Yellow drapery cannot be so well represented by any colour as king's yellow, laid thin, with a moderate quantity of gum in it.

Drab colour is well represented by a judicious mixture of umber in its raw state, and flake white.

A queen's brown, as it is called, is made of burnt Roman ochre, a little lamp-black and lake, with flake white amongst it.

Claret colour may be well represented by a mixture of Terra de Cassel, a little lamp-black and lake. The more black and lake the deeper the colour.

Dark brown can be formed by a junction of Nottingham ochre, lake and lamp-black.

Lilac is made of carmine, Prussian blue and flake white.

Grey can be formed only of lamp black, flake-white, and the smallest quantity of lake laid in very thin.

Reddish brown is best made of Indian red, very little lamp-black, and flake white.

Scarlet is a colour very difficult to lay down rules for making, as in some pictures it is dangerous to make it too bright, for fear of hurting the effect of the face, by its brilliancy catching the eye too readily; consequently, if the subject you are painting from life is very pale, you run a very great risk by annexing a very bright scarlet to his picture. We shall therefore only mention that a very bright scarlet is made of Chinese vermilion and carmine, ground together (with-

out any flake and white; and if you want it still rendered brighter, when it is dry, fill your pencil with plain carmine, mixed with thin gum water, and glaze over it nicely: but if, on the contrary, you wish to sadden or take away a share of its brilliancy, add a little flake white to it, and that will have the desired effect.

Of painting the face in Miniature.

You are first to provide yourself with a mahogany desk for painting on, which is a box about fourteen inches high, and a foot broad on the top; there is to be a lid covered with green cloth, which is to have a pair of small hinges at the front, and to lift occasionally with a supporting rail at the back, and notches, so as readily to adjust it to any height. About the middle of the green cloth there is to be a slip of very thin mahogany, glued at each end, but the centre of it left free, to fasten your ivory by, slipping it between the mahogany and green cloth.

The next thing you are to observe, is the choice of your light which in this kind of painting cannot be too particularly attended to; it not being like oil-painting, where the rays of the sun may be kept out by blinds, &c. without causing any material inconvenience. A north light, or as nearly as possible to it, must be attained. If there are more than one window in the room, the second must be closed, so as to admit no light; and the one you sit at is to have a green baize curtain against the lower part of it, to reach about a foot higher than your head, as you sit at your painting desk, with your left towards the light.

Having placed your sitter at the distance of about a

yard and a half from you, begin drawing the outlines of the face; and in this be very particular, as much depends on it. When you have them drawn correctly begin to lay in the colour, faintly, of the iris of the eye, the shadows under the eye-brows in a grey tint, and under the nose rather a warm purple, in broad faint washes: ever keeping this in your mind, that you must, in the process of painting the face of a miniature picture, go on faintly at the beginning, and not hurry in your colours, as such conduct will to a certainty, make your tints look dirty, and your picture harsh and disagreeable. Having, as before observed, laid in your grey tints where your shadows are to fall, go on heightening them by degrees, working in hatches with a middling full pencil, not too washy, nor too dry; as the former would have been the means of muddying your colours, and the latter would make them raw. When you think you have pretty strongly marked out, and worked up the shadows, mix a wash of either gall stone, or Nottingham ochre, and drop lake, with which faintly go over the fleshy parts of the face, where the shadows do not come; and then proceed to heighten carnations on the cheeks, the colour of the beard, if any such appears, still working in the handling manner already mentioned, in various directions; so that, after some time working, the intersections appear like so many nice points or dots. Observe, as a general rule, that it is much easier to warm the tints of your face, than to cool them, by working proper colours over it. It is therefore best to begin with cool greys and purples, and towards the finishing of the picture, to add warmth, if necessary, by gradually working such colours as

galls-tone, terra Sienna, or the like, over in addition to the carmine or lake that may be necessary to produce the tint of nature.

From the variety of style adopted by different miniature painters, it is very difficult for a young beginner to ascertain which is best to be followed; and as there is a certain degree of mechanical attention to be paid to the management of the water colours, to preserve them clear and free from muddiness, which is difficult to attain, we recommend to the young artist to procure a good miniature, if possible, and keep it by him, observing the style of penciling, and management of the colour, at the same time letting nature be his guide in the making of his features and colouring of his picture.

In the management of back-grounds, the young painter is to observe their twofold purpose: that of giving the lights their proper value; and on the other hand of harmonizing the colours of the face, by artfully engaging the eye with somewhat of similitude in the back ground to a tint in the face, which otherwise, in course of working to express a particular part, might appear too prevalent.

In painting a head on an oval piece of ivory, such as the present form of a miniature picture, draw the chin as nearly as possible in the centre of the ivory, unless the person is very tall, in which case it must be higher up; and if very short the contrary.

ENCAUSTIC PAINTING.

THIS method of painting has been little practised in England. For the information of the curious we give the following directions, which will enable them to produce with ease a picture in this very curious manner.

The first method is described in a letter from Mr. Febroni, the inventor, published in Maty's Review for 1785.

"Mr. Lewis, of Gottenbrun, has lately executed a picture according to my manner: it is done upon wood prepared with wax, and is remarkable for the vivacity and splendour of its colours. I believe I have already mentioned to you, in what this new manner consists: you melt, or rather dissolve, some good white wax in naptha patrolei, without colour, till such time as the mixture has acquired, by cooling, the appearance of an oil beginning to freeze. Mix your colours in this, and then keep them in small tin boxes; you dilute them more or less, with the same naptha, according as they dry, or as you wish to use them. This painting allows time enough to give all the finishing you desire; and if you wish to work in haste, you may dry as fast as you please by exposing it to the heat. When the picture is finished, it is of that fine tone which is preferable to any varnish; but if you choose a varnish only, warm the picture, and the naptha will evaporate. When this is

done, you must wait till the picture cools, when you must polish it by rubbing it over nicely with a cloth. If you wish to have it still brighter, you must melt white wax on the fire, without suffering it to boil; mix a little naptha with this, and draw a lair of it over the picture already heated, by means of a brazier, which you hold under, if the picture is small, or before it if it is large; the colours at first appear as spoiled, but you restore them to their first beauty, if, when the layer of wax is cooled, you polish it by rubbing with a cloth; it is then that the colours take the high tone of oil. If you fear the effect of fire for your picture, you are to make a soap of wax, which is to be done by boiling white wax in water, in which you have dissolved a twentieth part of the weight of the wax of marine alkali, or *sel de sourde*, very pure. Rub your picture with this soap; and when it is dry, polish it as before-mentioned; if you do not choose either of these methods, give your painting its usual varnish of sandarac and spirit of turpentine. This method has been found preferable to all those that have been tried, and superior to oil for the beauty of their colours. There are many fine colours which cannot be used in oil, that may be made use of with great success in this method.

As the naptha entirely evaporates, one may be assured, that this is the true method of painting in wax. There is likewise much to hope for duration of the pictures painted in this manner, as wax is much less liable to alteration than oil, and does not so easily part with its phlogiston."

PAINTING ON GLASS, OR BACK-PAINTING.

This manner of painting is executed with great facility: it gives all the softness that can be desired, and is easy to work; there are no outlines to draw, nor shadows to insert, but your colours are put on without the trouble of either. The prints for this purpose are done in mezzotinto, but many of those well finished, engraved in the manner of chalks, are very proper; for their shadows blended together, when rubbed on the glass, appear soft and united as drawings on Indian ink; such prints to have their margin cut off; then on a piece of fine crown glass very clean, the size of the print, and free from knots and scratches, lay some Venice turpentine on one side, quite thin and smooth with a painter's brush—lay the print flat in water; when thoroughly wetted, which requires twenty-four hours for some sorts of paper, but other sorts are ready in two hours, take it carefully out, and lay it between dry papers that the superfluous water may be absorbed: next, lay the damp print flat on a table, with its face uppermost, then holding the glass over it, without suffering the turpentine to touch it till it is exactly even with the print, gently press the glass in several parts, and turning it, press the print with your fingers, drawing it from the centre to the edges, till it is quite smooth and free from blisters; when this is done, wet the back of your print with a sponge till the paper will come off with your fingers; then rub it gently and the white paper will roll off, only the ink

which formed the impresion, remaining. When dry, with a camel-hair pencil, dipped in oil of turpentine, wet it all over, and it will be perfectly transparent, and fit for painting on; a sheet of white paper, placed behind, will contribute to its transparency. Lay the lighter colours first on the light parts of your prints, and the darker over the shaded; and having once laid on the brighter colours, it is not material if the darker sorts are laid a little over them, for the first colour will hide those laid on afterwards.

The glass, when painted, must stand three or four days to dry, and be carefully covered from dust. The proper colours are those used in oil.

FOR ENAMEL GROUNDS.

The matter of the enamel must be first finely levigated and searced; and the body to be enamelled should be made perfectly clean. The enamel must then be laid on as even as possible by a brush or pencil, being first tempered with oil of spike; and the distance of time betwixt the laying on the ground, and burning the piece, should not be too great; because the oil will exhale, and leave the matter of the enamel a dry incohering powder, which will be liable to be rubbed or shaken off by the least violence. This is the common method; but there is a much better way of managing this part of the work by means of a searce, in which the enamel is spread with very little trouble, and the greatest part of the oil of spike saved.

The method of performing this is, to rub the surface to be enamelled over with oil of spike; and then, being laid on a sheet of paper, or piece of leather, to save that part of the enamel which does not fall on a proper object, to searce the matter on the oiled surface till it lie of a proper thickness; but great care must be taken in this method of proceeding, not to shake or move too forcibly the pieces of work thus covered with the powdered enamel.

It is usual to add oil of turpentine to the oils of spike or lavender, in order to make them go further, and save the expence attending the free use of them; and others add also a little olive or linseed oil; or some, in the place of them, crude turpentine. The use of the spirit of turpentine is very allowable: for it is the same for this purpose as the oils of spike or lavender, except that it wants the glutinous quality which makes them serviceable in spreading the enamel; but, with respect to the use of the oils of olive and linseed, or any other substantial oil, it is very detrimental; tending to reduce the metalline calxes; and leaving a small proportion of black coal or ashes, which must necessarily injure the white colour of the ground.

When plates, as in the case of pictures, dial-plates, &c. are to be enamelled, they should always be made convex on the outside, and concave within; and all pieces of enamel formed of metal, where the figure does not admit of their being thick and solid, should be of the same kind or form; otherwise they will be very apt to warp in the heat, and cannot be brought straight after they are taken out of the fire, without cracking the enamel. For this reason, likewise, it is

proper to enamel the work all over, as well on the wrong as right sides, to prevent the heat from calcining the metal; which would both contribute to its warping, and weaken the texture of it.

The enamel being laid on the body to be enamelled, when the fixed muffle is used, the piece must be gently lifted on to the false bottom, and put in that state into the muffle fixed in a furnace, by thrusting the false bottom into it as far as it will go; but it is better to defer this till the fire be perfectly in order, which may be known by putting a bit of tile or china, with some enamel on it, of the same tone with that used as a proof; and another proof of the same kind may be also put along with the work into the muffle; which being taken out, may show how the operation proceeds.

Pit-coal may be used in the furnace, where enamel is burnt with a fixed muffle, or in coffins, which is indeed one principal conveniency attending the use of themit, as saves a considerable expence of charcoal; but where the open muffle is used, charcoal alone should be employed, as the fumes of mineral coal are very detrimental to some colours, and destructive of the grounds, if whitened by arsenic, as the common white glass.

The colours being prepared, they must be reduced to powder by due levigation and washing over, where they are required to be extremely fine, and there is no unvitrified salt in the mixture. They must then be tempered on a China or Dutch tile, with oil of spike or lavender, to which most artists add likewise oil of turpentine, and some (but we think erroneously), a little

linsed or olive oil, and in this state they are to be used as paint of any other kind; but it should be avoided to mix more of the colours with the essential oils than will be immediately used; because they dry away extremely fast, and would not only be wasted, but give a cohesion to the particles of the colours, that would make them work less freely when again diluted with oil.

The colours being thus laid on the pieces to be painted, the proceeding must be in all respects the same as with the grounds, in whatever manner they are to be burnt, either in the muffles or coffins; but greater nicety must be observed with respect to the fire, as the effects of any error in that point are of much greater consequence in the burning the colours than the grounds; especially if the white of the grounds be formed from the calx of tin or antimony, and not arsenic.

Pit-coal, as was above observed, may be employed for burning as well the colours as the grounds, where the muffle or coffins are used; or any other method pursued that wholly hinders the smoke and fumes from having any access to the enamel.

OF ENAMEL PAINTING.

ENAMEL painting differs from all other kinds, in the vehicle employed for the colours (to hold the parts together, and bind them to the ground they are laid upon); this is glass, or some vitreous body, which being mixed with the colours, and fused, or melted, by

means of heat, becomes fluid: and, having incorporated with the colours in that state, forms together with them, a hard mass when grown cold; it answers, therefore, the same end in this, as oil, gum-water, size, or varnish, in the other kinds of painting.

The glass, or vitreous body, applied to this purpose of mixing with the colours, in order to bind them to the grounds, is called a flux; and makes one of the principal substances used in enamel painting; when this flux is easily fusible, that is to say, melts with a less degree of heat, it is in the stile of those who work in enamel said to be soft, and when it is reluctant to melt, and requires a greater degree of heat, it is called hard; these terms are as well applied to the matter of the enamel grounds, and all other vitrous substances concerned as to the fluxes. It is, in general, a perfection of the flux to be soft, or run easily into fusion; but the great point with respect to this particular, is, that when several mixtures of colours and fluxes are used at the same time, they should all correspond to each other in the degree of this quality; otherwise some would be rendered too fluid, and perhaps run the matter of the enamel ground into fusion, and mix with it, while others remained solid and insufficiently fused themselves. It is always necessary, likewise, that the enamel of the ground should be considerably harder than the mixtures for the colours; for, if they both melt with the same degree of heat, they will necessarily run together.

It being requisite that the body painted in enamel should undergo a heat sufficient to melt soft glass, the

matter of such body can only be gold, silver, copper, porcelain, or china-ware, hard glass, and earthenware; and where the metals are used, if the painting be of the nature of a picture, or demand a variety of colours, it is necessary that a ground of white, or some other colour, should be laid on the metal; the body of which ground must necessarily be of the same vitreous nature as the flux, but harder, as nothing else can endure so great a heat that is capable of incorporating with, and binding the matter of the white or other colour to the surface of the metal. The ground, therefore, makes another principal substance used in enamel painting.

The third substance is the colour, which must likewise be a body capable of suffering the heat of melted glass; and such as will either itself be converted into glass, or kindly incorporate with it, in a melted state; this, of course, confines the matter of such colour to metals, earths, or other mineral bodies; all vegetable and animal substances being calcined and analized, with a less degree of heat, than the lowest sufficient to work enamel.

The fourth kind of substance is what we shall call the secondary vehicle, which is, some fluid body for laying on the ground, and working with the pencil, the flux and colours when mixed together, since, as they form only a dry powder, they could not be used as paint, without some such medium; but as this is to serve only for spreading and laying on the matter of the enamel, and not, like other vehicles, to assist in holding the colours together, and binding them to the ground, (that being in this kind of painting the office

of the flux) it is necessary that it should be some such substance as will evaporate and dry away without leaving any part behind; as it would otherwise be heterogeneous matter, with regard to the enamel, and consequently injurious to it. Essential oils have been therefore generally used for this purpose, as they have the quality of wholly drying away on the first approach of heat, together with a slight unctuosity, which renders them capable of making the matter of the enamel work properly with the pencil.

The preparation of these several substances have been in a great measure monopolized by the Venetians, except what were formerly prepared at Dresden; of late, however, they have been introduced in the China Manufactories of Worcester and Birmingham, with the most brilliant success. The few others who have had any knowledge of this matter, have practised the preparing only some kinds; and even at present there are, perhaps, few in this country who make more than a small part of the variety necessary; for though many possess the knowledge of some particular articles, yet they are ignorant with regard to others, which are again, perhaps, known to those who are ignorant of these. As there has been hitherto no means afforded to the practisers of it, of learning the particulars of this art in a system, and a deeper knowledge of the principles and practice of chemistry is requisite to the attaining it without being taught, than could well fall to the share of painters or other artists, we shall, therefore, be more minute in our instructions for the making the several kinds of the grounds, fluxes, and colours, in order that they who are con-

cerned in, or may be desirous to apply themselves to the art of painting in enamel, which is now become the basis of a considerable manufacture in this country, may furnish themselves with whatever is necessary in its greatest perfection.

Besides the knowledge of the preparation of the above substances, and of that part of the art of using them which belongs to painters in general, there is another requisite; this is the burning, as it is called, the grounds, in order to forming them on the body to be painted, or enamelled; as also the colours with the fluxes after they are laid on the grounds. What is meant by burning, is the giving such a heat to the matter, when laid on the body to be painted, as will fuse or melt it; and consequently give to the flux, or vitreous part of the composition, the proper qualities of a vehicle for binding the colours to the ground, and holding the parts together. As this requires a particular apparatus, we shall endeavour to shew the method of constructing it in the most expeditious and easy manner, and give such cautions for the conduct of the operation, both for burning the grounds and painting, as may best teach those who are less experienced in it, to attain to perfection in this art. It cannot be expected, nevertheless, considering the nicety of the subject, such directions can be given as will ensure success in the first trials, with regard to several of the processes, or even the general operations; but whoever will make themselves masters of the principles on which they depend, which are all along intimated, will easily be able to correct their own errors.

A judgment formed by some little experience, is likewise requisite for the preparing well the colours

with certainty; for as different parcels of the same substance vary frequently in their qualities with regard to the degree of proportion, it is necessary to make allowance accordingly in the proportion of the quantities in the mixtures; this cannot be done till some little previous trial be made, and the power of judging of them be gained by an experimental acquaintance with them; but as the materials in general are very cheap, and the experiments may be made in the same fire where actual business is done, whoever would excel in the art of preparing and using enamels, should take a considerable scope of experimental enquiry into the effect of all the various proportions and commixtures of the substances used.

Of the Substances used for forming Fluxes.

Minum, or red lead, is used as a fluxing body, for forming the enamel for grounds; as also in compounding fluxes for the colours; it requires no preparation for these purposes; only it is proper it should be pure, which may be known by the method before given; this flux renders the enamel soft; but producing some proportion of yellow colour, is not fit for all uses.

Fixed alkaline salt of vegetables is sometimes used also in forming the mixture for enamel grounds; as likewise in some compositions of fluxes for the colours it makes a less soft enamel than the lead, but is free from yellow, or any other colour, and therefore proper for some purposes.

Borax is a salt of very peculiar qualities; amongst which, is that of promoting vitrification, and the fusion of any glass when vitrified in a greater degree than any other substance known; on which account it is of the greatest consequence in forming fluxes for enamel. It requires, nevertheless, either to be previously calcined or brought to a vitreous state, which it suffers from the application of moderate heat alone; and it must also be finely powdered before it be mixed with other ingredients in fluxes. Its use is not much known in common practice, though of the greatest consequence to the art of enamelling; as not only a set of softer colours may be produced by the aid of it, than can be otherwise had, but the degree of each may be brought to correspond, by the employing it in different proportions, according to the respective hardness of the other ingredients, which differ so much as not to be regulated justly by another means.

Common salt may also be used as a flux in enamelling, particularly where there is occasion for glazings; as it is not only extremely fluid, and free of tenacity when used, but also less subject to crack than any other vitreous body whatever; but for fluxes for grounds and colours in enamel, it is not frequently necessary to multiply ingredients, as the above three substances may, when properly applied, sufficiently answer most purposes. The same reasoning extends to nitre and arsenic; which, though they have the qualities of fluxes, possess yet along with them such others, with respect to their effect on several of the substances that compose the colours, as renders the methods of using them difficult and complex.

Of substances used for forming the body of enamel, or fluxes.

WHITE sand is used as a body for the fluxes and grounds of enamel: it should be reduced previously to an impalpable powder, in order that it may be mixed more intimately with the other ingredients, which not only accelerates the vitrification, but renders the glass much more perfect. The kind of sand proper for this purpose, is that brought from Lynn, in Norfolk, and is called by the name of that place.

Flints are used for the same purpose as the white sand; and it is proper to use them when that cannot be procured of the right kind. They require to be calcined before they are applied to any purpose of vitrification. This is to be done, by putting them into any fire, and continuing them there till the whole substance become white, when they must be taken out; and while in their full heat, immersed in cold water, and kept there for some time. By such treatment they will be rendered of a very brittle and calcareous nature, and very easy to be powdered, which must be done to a perfect degree, for the reason above given. Where small quantities of the matter of any kind of enamel is to be prepared, calcined flints are preferable to sand, as they are much more easily reduced to an impalpable powder, and the trouble of the previous calcination is very little.

There is a sort of stone, which the French call milon, that forms the upper crust, and lies round the freestone in most quarries. This stone will lose its tenacity in

a moderate fire; and, when calcined, runs much sooner into vitrification than either flints or sand; it is therefore, when it can be obtained, a better matter for the body of fluxes, or soft enamel, than either of the other. It will, with the same proportion of the fluxing ingredients, make a much softer flux; or, it otherwise admits of the diminution of the proportion of some of them, which, for many expertmental reasons, is, in certain cases, an advantage.

Of the substances used for producing a white colour in enamel, for forming the grounds.

PUTTY, or calcined tin, is used as a body of colour for the enamel grounds. As tin is very troublesome in calcination, requiring a long continuance of fire, and to be spread into a very thin surface, it is much the best way to procure it for the purposes of enamelling readily calcined, of those who make it their proper business to calcine it for the use of lapidaries, and other artists who use it; for they have large furnaces, fitly constructed for performing that operation in large quantities, and can consequently afford it much cheaper than it can be prepared in small quantities; besides the saving the trouble. It must be demanded of them by the name of putty; and care must be taken that it be not sophisticated, which it seldom fails to be before it comes out of their hands for common purposes. The sophistication, which is generally by chalk, lime, or some such white earth, may be thus distinguished: —put the putty into a crucible with some tallow or other grease; and give it the heat of fusion, or what is

sufficient to melt it, supplying the grease in fresh quantities as it burns away, till the calcined tin appears to have regained its metallic state. Suffer then the remainder of the grease to burn away; and the chalk or earth, if any were mixed with it, will be found swimming on the surface of the metal; to which, however the ashes of the grease must be supposed to have added some little quantity. There is, nevertheless, another body with which the putty or calx of tin may be adulterated, that will not discover itself by this method of reduction of the tin; it is white lead, which, in this manner of treatment, would run into fusion, and mix with the tin; and could therefore not be distinguished from it; but it may be easily rendered perceptible by another manner of proceeding; which is, to take the putty suspected to be adulterated with it, and having put it into a crucible without any admixture, and inverted another crucible over it as a cover to give it a moderate heat, carefully avoiding that the smoke or coal of the fire may have any access to it to change its colour. If there be any white lead mixed with the putty, it will shew itself, when removed from the fire, and become cold in a yellow or brown colour. If no such colour supervene, but the putty appear equally white as before it was heated, a conclusion may be safely made that it was not adulterated by white lead; or that, if sophisticated at all, it must be by some white earth, which may be made perceptible by the reduction of tin in the manner before-mentioned.

Ultramarine (the preparation of which we have before given) is used in enamel, where very light blues of a lighter tint are wanted: and, sometimes indeed, in

other cases, by those who do not understand the right use of zaffer and smalt; but there are few instances where zaffer, when perfectly good, fluxed with borax and a little calcined flint, or Venetian glass, to take off the fusible quality of the borax, will not equally well answer with the best ultramarine; the ultramarine requires no preparation when used in enamel painting, previously to it being mixed with the proper flux; and what relates to its general qualities, and the means of distinguishing its goodness or genuineness, we have, along with its preparation, before taught.

Ultramarine ashes are used, where light semi-transparent blues are wanted; but they are frequently adulterated with precipitations of copper, which, of course, turn green on fluxing, that it is very necessary to be cautious in the use of any parcel not previously tried.

Zaffer is used for producing blue, green, purple, and black colours in enamel; it is an earth obtained by calcining a kind of stone, called cobalt; and when it is mixed with any kind of vitreous bodies, it vitrifies, at the same time assuming a strong blue colour, but for the most part verging to the purple; it is to be had in a state proper for use, of those colourmen who make it their particular business to supply the glass-makers with colours. The goodness of zaffer can scarcely be known but by an actual trial of it; and, comparing the effect of it with that of some other known to be good, and used in the same proportion.

Magnesia is an earth, which, when fluxed with any vitreous body, produces a broken crimson, or foul rose-

colour. It is not to be had, prepared fit for use, except by more perfect levigation from those who sells colours to the glass-makers. It is useful not only for some purpose as a red, but for the several compositions of black, purple, and some browns. The goodness of the magnesia must be determined by the same means as that of zaffer.

Smalt is, as before-mentioned, zaffer vitrified with proper additions, which are generally fixed alkaline salts and sands, or calcined flints, which are sometimes used as a blue in enamel: but being hard, it requires, for such purposes, to be used with a flux, which, increasing the body of glass in too great a proportion for the tinge, is apt to dilute the colour too much where great force is wanted; therefore the use of the zaffer itself is in most cases preferable. There have nevertheless been, as was above observed, some parcels of smalt, or vitrified calx of cobalt, brought from Saxony, which are of an extreme strong body of colour and will bear any proportion of flux necessary to render them as soft as may be required, without weakening the colour too much for any purpose. Common smalt, however, ground very fine, and mixed with a fourth part of its weight of borax, (which is much the most powerful and kindly flux for zaffer), will run pretty well, and may be used where either a full colour is not demanded, or where the work will admit of the colours being laid on thick. The goodness of smalt may be judged of by its bright and deep colour; and the less it inclines to the purple the better.

In order to judge of the strength of the colour, the smalt should be reduced to a fine powder; for, in a grosser state, every degree of fineness renders it so different, that a judgment cannot be easily formed of it. Smalt is to be had of all colourmen, and is not subject to any adulterations which would not be obvious on inspection.

Gold is used in enamel to produce a crimson, or ruby colour; which, by the mistaken sense of the Latin word *purpureous*, has been called purple by all the English and French writers. It must be previously reduced to the state of a precipitated powder, by dissolving in *aquæ regia*, and making a precipitation by means of tin, fixed alkaline salt, or some other metallic, or alkaline body.

Silver is used for producing a yellow colour in enamel. It must be previously reduced to the state of a powder, which may be done either by precipitation from spirit of nitre, or by calcination with sulphur. The precipitation of silver from spirit of nitre, may be performed by dissolving an ounce of silver in two or three ounces of spirit of nitre, and precipitating and edulcorating it.

Copper is used in enamel painting, for the forming green, blue, and red colours, but it must be previously either calcined, or reduced to the state of a powder by precipitation.

Iron is used to produce an orange red, or foul scarlet colour in enamel; as also a transparent yellow: and to assist, likewise, in the formation of greens, and other compound colours. It is prepared many ways,

both by corrosion and precipitation; some of which, indeed, make a real difference, but most of them lead to the same end.

Antimony is used for producing a yellow colour in enamel, as well as the white before-mentioned; and, indeed, it is the most useful, and most used of any substance whatever for that purpose. It is prepared only by levigation; to which its texture notwithstanding its being a semi-metal, very well suits.

Glass of antimony is also used sometimes in enamel painting; being itself a fine transparent orange colour. But as it wants body, it has no great effect but in compositions.

Orpiment has been also used in enamel for producing a yellow colour; but it is very tender with regard to the fire, and requires so soft a flux, while, at the same time, antimony, properly managed will so well supply the place of it, that it is rarely used.

Powdered bricks have been also used for compounding yellow colours in enamel: but as they act only in consequence of the oker they contain, they are certainly inferior to the prepared okers we have given.

The most active flux amongst salts is borax; which indeed possesses this power in the greatest degree hitherto known of any simple whatever. The next is lead, which vitrifies with a very moderate degree of heat, assimilates to glass itself, not only many kinds of earth, but all metals and semi-metals, except gold and silver in their entire state. Arsenic is the next powerful flux, only it requires to be fixed, by conjoin-

ing it with some other body already vitrified, otherwise it sublimes and flies away before it arrives at the vitrefactive heat. The several kinds of salts have the next degree of fluxing powder; and among them sea salt possesses the greatest: but they are not sufficiently strong themselves to form an enamel flux soft enough to be used in painting; though, as they are colourless, which is not the case of vitrified lead, they are very necessary to be compounded with lead; or used in its place, assisted by borax, where absence of every degree of colour is necessary in the flux.

PAINTING TRANSPARENCIES.

The effect of this kind of painting, which has lately become very fashionable, though by no means a modern invention, is very pleasing if managed with judgement, particularly in fire and moonlights, where brilliancy of light and strength of shade are so very desirable.

The very great expence attending the purchase of stained glass, and the risk of keeping it secure from accident, almost precludes the use of it in ornamenting rooms; but transparencies form a substitute nearly equal and at a very small expence.

The paper upon which you intend to paint must be fixed in a straining-frame, in order that you may be able to place it between you and the light, when you see occasion in the progress of your work. After trac-

ing in your design, the colours must be laid on in the usual method of stained drawings. When the tints are got in, you must place your picture against the window, on a pain of glass framed for the purpose, and begin to strengthen the shadows with Indian-ink, or with colours, according as the effect requires, laying the colours sometimes on both sides of the paper, to give greater force and depth of colour. The last touches for giving final strength to shadows and forms, are to be done with ivory-black, or lamp-black, prepared with gum water, as there is no pigment so opaque and capable of giving strength and decision.

When the picture is finished, and every part has got its depth of colour and brilliancy, being perfectly dry, you touch very carefully with spirits of turpentine on both sides, those parts which are to be the brightest, such as the moon and fire, and those parts requiring less brightness, only one side. Then lay on immediately with a pencil, a varnish made by dissolving one ounce of Canada balsam in an equal quantity of spirit of turpentine. You must be cautious with the varnish, as it is apt to spread. When the varnish is dry you tint the flame with red-lead and gamboge, slightly tinging the smoke next the flame: the moon must not be tinted with colour.

Much depends upon the choice of the subject, and none is so admirably adapted to this species of effect as the gloomy gothic ruin, whose antique towers and pointed turrets finely contrast their dark battlements with the pale, yet brilliant moon. The effect of rays passing through the ruined windows, half choaked with ivy, or of a fire amongst the clustering pillars and

broken monuments of the choir, round which are figures of banditti; or others whose haggard faces catch the reflecting light: these afford a peculiarity of effect, not to be equalled in any other species of painting. Internal views of cathedrals also, where windows of stained glass are introduced, have a beautiful effect.

The great point to be attained, is a happy coincidence between the subject and the effect produced. The fine light should not be too near the moon, as its glare would tend to injure her pale silver light; those parts which are not interesting should be kept in an undistinguishable gloom, and where the principal light is, they should be marked with precision. Groups of figures should be well contrasted; those in shadow crossing those that are in light, by which means the opposition of light against shade is effected.

PERSPECTIVE.

Perspective is the foundation of all the polite or liberal arts that have their basis in drawing; though colouring, taken abstractedly, does not come within its rules, yet the painter as well as the sculptor and architect cannot but derive essential advantages from a knowledge of perspective; it is indeed difficult to conceive how a person who has not either been instructed in, or been gifted by nature with some idea of the effects produced by locality and distance, can form any thing

like a correct opinion of the merits of those imitations of nature which come under the heads of portrait, landscape, figure or architectural drawing.

Perspective is, in brief, the art of representing, upon a plane surface, the appearance of objects, however diversified, similar to that they assume upon a glass-pane interposed between them, and the eye at a given distance. The representation of a solid object on a plane surface can show the original in no other point of view but that from which it is at the time beheld by the draughtsman; the least change in any of the parts requires a change in the whole; unless in fancy drawings where a fac-simile is not required. Nor can any deviation from the several lines, which will be hereafter explained, and on which the truth and correctness of reputation depend, be allowed without changing the bearings, direction, and tendency of all the perspective lines which constitute the basis of that faithful and converging series which unite all the component parts in the most pleasing and harmonious concinnity.

By perspective we are taught to delineate objects on a plane, upon geomatrical principles, and in exact ratio with their several magnitudes, governed by their distance. But it is not in the power of art to represent any single figure, (exact as it appears in nature) on a plane, except it be a circle; and then the point of sight or direct position of the eye, must be perfectly centrical. The reasons for this are obvious: every object which recedes from the eye, (such as a row of houses in an oblique direction), inevitably requires that its more remote parts should be represented as being of less magnitude, than those more in front, that is, nearer to the

spectator. Now, although it is considered an axiom in perspective that all objects standing parallel to the base line, or bottom of the picture, should be represented as preserving in every instance the real proportion of the scale from which their parts are taken; yet when we analyze the object, according to the various angles those several parts make with the eye, we shall find that even such full pointing figures require their more remote parts to be reduced in proportion as they become more distant from the centre, or point of sight. But it will be obvious, that where the object is very remote, there must be the less necessity for such scrupulous attention; therefore when we draw an extensive mansion, full fronting, at a great distance, we describe all the horizontal lines in the building, by horizontal lines in the drawing; so long as they come under any angle of 60 degrees; which is the natural range of sight, and beyond which no picture should ever extend; when beyond that angle, we cannot take the whole picture at one view; but must treat it as a panorama, and view the several parts abstractedly. When a building is so near as to occasion turning our heads round for the purpose of seeing its several parts, they have the same effect, and compel us to have recourse to various vanishing points in which we seek the termination of those lines that converge, and in fact divide the building, though full fronted and uniform, in several parts; each of which seem to assume a distinct character, and to demand separate consideration. This will be more fully understood when we treat of the general rules which govern perspective. The reader must recollect that, as it would be impossible to represent more than

one view of the object, in one plane, or picture, so there can be but one point of sight; that is but one particular spot, where the eye of the spectator is supposed to be fixed; from which, as from a very minute point, all the figures represented must appear as under one general system. The same attention must of course be paid to shadows; for we cannot suppose the dark side of a house to result from any thing but the light being in such a quarter as does not allow it to strike on that side; consequently we attribute the bright side of the same object to its being illuminated by rays which act peremptorily upon it. Speaking of common effects, we consider the light to be solitary; such as the Sun or the Moon, or one candle, &c. hence we perceive both the necessity, and the reason, for exhibiting all objects as bright which are within the range of, or show themselves openly to, the light, and all parts to which its rays cannot reach direct, as being in the shade, and more or less dark, according as they may be more retired and confined. When two lights are found in the same picture, such as two candles on a table, there will be to every object under their mutual influence a half shade, and a whole shade; the former called the penumbra, shewing that extent which results from one light being obscured, or cut off; and the latter or the umbra, shewing those parts which are not acted upon by either of the lights. This will be obvious to any person who may place two candles behind him, as he sits with his back to a table; they being about two feet asunder. He will then see, on the wall, the influence of each candle; and his shadow will increase with the remoteness of the plane, or wall on which it is represented.

The following definitions of the principal features in the science and application of perspective will prove useful to the student, *viz.* projection delineates objects in plano, by means of right lines called rays, supposed to be drawn from every angle of the object, to particular points. When the objects are angular, these rays, necessarily form pyramids, having the plane or superfices, whence they proceed from their basis; but when drawn from, or to, circular objects, they form a cone.

Ichnography, or ichnographic projection, is described by right lines parallel among themselves, and perpendicular to the horizon, from every angle of every object on plane parallel to the horizon. The points where the perpendicular lines or rays cut that plane being joined by right lines. The figure presented on the horizontal plane is likewise called the plan, or seat of that object on the ground plane. The points are the scites, or seats, of the angles of the object. The lines are the seats of the sides. By this we are to understand how the basis of figures represented as superstructures stand, or are supported; and we are further enabled to judge of, indeed to measure, their several parts, and their areas.

Orthography represents the vertical position and appearance of an object; hence orthographic projection is called the elevation. When we thus see the front of a house, we give it that term; but when the side is displayed we call it the profile. If we suppose a house or other object to be divided by a plane passing perpendicularly through it in a line at right angles with the point, we call it the lateral section; but if the plane

pass in a direction parallel with the front, it is termed a longitudinal section. If the plane passes in neither of the former directions (not however deviating from the vertical) it is said to be an oblique section.

These give us the modes of laying down plans, of shewing the parts, and the manner in which the interiors of edifices are arranged; consequently are indispensible to the architect, surveyor, and indeed should be understood by every person in any way connected with building, or designing. Nor should the following be neglected, viz. scenography, which shews us how to direct the visual rays to every point, or part, of a picture; and stereography, which enables us to represent solids on a plane, from geometrical projection; whence their several dimensions, viz. length, breadth, and thickness may all be represented, and be correctly understood at sight. We suppose our readers to have some knowledge of geometry before they commence upon this, or any other of the abstract sciences which are founded thereon.

An original object, is that which becomes the subject of the picture, and which is the parent of the design. Any plane figure may become an object, as may any of its parts, as a broken pillar, the ruins of a house, the stump or the branch of a tree; but we generally speak of objects as relating to entire figures represented as solids, or to as much rural or other scenery as may be embraced under an angle of sixty degrees formed by two lines meeting at the eye. This will explain why we are enabled to represent so great a number of distant objects, while the front, or fore-ground, will contain,

comparatively, but a very few: it being obvious that as the lines forming the angles become more distant, the more may be included between them.

Original planes, or lines, are the surfaces of the objects to be drawn; or they are any lines of those surfaces: or it means the surfaces on which these objects stand.

Perspective plane is the picture itself, which is supposed to be a transparent plane, through which you we view the objects represented thereon.

Vanishing planes are those points which are marked upon the picture, by supposing lines to be drawn from the spectator's eye parallel to any original lines, and produced until they touch the picture.

Ground plane is the surface of the earth, or plane of the horizon, on which the picture is supposed to stand.

The ground line is that formed by the intersection of the picture in the ground plane.

The horizontal line is the vanishing point of the horizontal plane, and is produced in the same manner as any other vanishing line, viz. by passing a plane through the eye parallel to the horizontal plane.

The point of sight is the fixed point from which the spectator views the perspective plane.

Vanishing points are the points which are marked down in the picture, by supposing lines to be drawn from the spectator's eye, parallel to any original lines, and produced until they touch the picture.

The centre of a picture is that point on the perspective plane where a line, drawn from the eye perpendicular to the picture, would cut it; consequently it is

that part of the picture which is nearest to the eye of the spectator.

The distance of the picture is the distance from the eye to the centre of the picture. If what has been already said and repeated, regarding the angle of 60 degrees, is understood, the spectator will never bring the picture so near to himself as to occasion the eyes to expand, indeed to strain, so as to embrace more than that angle.

The distance of a vanishing point is the distance from the eye of the spectator to that point where the converging lines meet, and after gradually diminishing all the objects which come within their direction and proportion, are reduced so as in fact to terminate in nothing. All parallel lines have the same vanishing point; that is to say, all such as are in a building, parrallel to each other, when not represented exactly opposite to, and parrallel with the eye, will appear to converge towards some remote point, *i. e.* their vanishing point. Circles, when retiring in such manner, are represented by ellipses, proportioned to their distances: their dimensions in perspective are ascertained by enclosing them, or the nearest of them, where a regular succession is to be pourtrayed within a square, which being divided into any number of equal parts or cheques, will show all the proportions of those more remote. We trust it scarcely requires to be repeated that the further any object is from the eye or foreground of a picture, the less it will appear in nature, and the more it must be reduced in exhibiting its perspective.

A bird's-eye view is supposed to be taken from some elevated spot which commands such a prospect as nearly resembles the plane or ichnography of the places seen. Thus the view from a high tower, or from a mountain, whence the altitudes of the several objects on the plane below appear much diminished, gives nearly the same representation as is offered to a bird flying over them; whence the term. Some idea may be formed of this by standing on any height, and observing how low those objects which are near thereto, will appear when compared with those more distant, taking, however, the perspective diminution of the latter into consideration.

Practical Examples in Perspective.

1. *To draw a square pavement in perspective.* *See fig.* I. *and* II.

Suppose your piece of pavement to consist of sixty-four pieces of marble, each a foot square. Your first business is to draw an ichnographical plan or ground plot of it, which is thus performed. Having made an exact square of the size you intend your plan, divide the base and horizon into eight equal parts, and from every division in the base to its opposite point in the horizon, rule perpendicular lines; then divide the sides into the same number, ruling parallel lines across from point to point; so will your pavement be divided into sixty-four square feet; because the eight feet in length, multiplied by the same in breadth, give the nnmber of square feet, or pieces of marble con-

tained in the whole: then rule diagonals from corner to corner; and thus will your ground plot appear as in fig. I.

Now, to lay this in perspective, draw another square to your intended size, and divide the base line A B into eight equal parts, as before; then your point of sight C in the middle of the horizon D E, and from the same point rule lines to every division in the base A B; after which, rule diagonal lines from D to B, and from E to A, answerable to those in the ground plot, and your square will be reduced to the triangle A B C; then from point F, where the diagonal D B intersects the line A C, to the opposite intersection G, where the diagonal E A crosses the line C B, rule a parallel line, which is the abridgment of the square.

Then through the points where the diagonals cross the rest of the lines, which go from the base to the point of sight, rule parallel lines, and your square pavement will be laid in perspective, as in fig. II.

2. *To find the height and proportion of any objects, as they appear above the horizon, on a supposed plane. See fig.* III.

First, rule your horizontal line F O, and fix your point of sight, as at M; then mark the place of your nearest pillar, by making a dot for the base or bottom, as at A: and another for the summit or top, as at B; rule a line from A to the point of sight M, and another from B to M, and these two lines will give the height of any number of pillars. As for example; suppose you would have a pillar at C, fix your dot for the base,

and rule from thence a parallel line to meet the diagonal A M at D; then rule the perpendicular D E to the diagonal B M; which perpendicular is the height of your figure required at C. Or, if you would place pillars at F and I, observe the same method ruling the parrallels F G and I K, and the perpendiculars G H and K L will give their heights at the distance required.

To find the diameter or thickness of pillars at any particular distances, you are also to be guided by that nearest the base. For instance; suppose your nearest pillar A B to be ten feet high and one foot in diameter; divide it from top to bottom in ten equal parts, and set off one of them upon the base of the pillar; then rule a line from the point of sight M, to the diameter P, and you will have the thickness of all your pillars on their respective parallels or bases.

3. *The same rule exemplified in objects below the horizon. See fig.* IV.

If you would know the heights of a number of figures below the horizon, rule your horizontal line Q R, and fix your point of sight, as at P; then place your nearest figure or mark the dots for the head and feet by the points A and B, which answers the same purpose; and rule from these dots to the point of sight the lines A P and B Q; and if you would find the height of a figure to be drawn at c, rule from thence the parallel c d to the diagonal B P, and the perpendicular d e will give the height required. The same directions will shew the height of a figure at any

other distance you have a mind to place it, as at f, i, and m, by ruling the parallels f g, i k, and m n; and from each of these their respective perpendiculars g h, k l, and n o; which perpendiculars will show the heights of the figures at f, i, and m.

4. To draw a direct view. See fig. V.

To illustrate this example, suppose you were to draw the inside of a church, as represented in this figure; first take your station at the point A, in the centre of the base line B C, from which you have a front view of the whole body of the church, with all the pillars, &c. on each side; then fix your horizon at any height you think proper as at D E; bisect it by the perpendicular E A; and where these two lines intersect, is the point of sight F. Next divide your base line into any given number of feet, and the visual lines, rule from these divisions to the point of sight, will reduce all your objects to their just proportion, by setting off their height upon a perpendicular raised at their respective distances. The base, in the example here given, is divided into twelve equal parts of five feet each; from which (supposing your front column to be thirty-five feet high) take seven divisions from the base line of your drawing, and set them off upon the perpendicular G H; then (supposing this column to be five feet thick at the base) set off one of those divisions upon the parallel I K, which is the breadth required. So that, by proportioning this scale to any distance by the foregoing directions, you may not only find the dimensions of all your columns, but also of every distinct part of them,

as well as of all the doors, windows, and other objects that occur. For nstance; having found the height and breadth of your nearest column G, draw from the top and bottom of the said column to the point of sight the lines H F and K F; after which, rule the line I F from the base of the column to the point of sight, and you have the height and breadth of all the rest of the columns, as has been already shown in fig. III.

By ruling lines from the points a, b, c, d, &c. to the point of sight, you will see that all the summits and bases of your columns, doors, windows &c. must tend immediately to that point; and by lines drawn from the points 1, 2, 3, 4, &c. on each side, to the correspondent points on the opposite side, may be seen all the parts of your building lying upon the same parallel.

5. *To draw an oblique view.* *See fig.* VI.

First, draw your horizontal line A B; then, if your favourite object be on the right hand, as at C, place yourself on the left hand upon the base line, as at D; then from that station erect a perpendicular D E, which will pass through the horizon at the point of sight F; to which rule the diagonals G F and H F, which will shew the roof and base of your principal building C; and will also, as before directed, serve as a standard for all the rest.

Observe also, either in direct or oblique views, whether the prospect before you makes a curve; for if it does, you must be careful to make the same curve in your drawing.

6. *To draw a perspective view, wherein are accidental points. See fig.* VII.

Rule your horizontal line a h, and on one part of it fix your point of sight, as at c; from which rule the diagonals c d and c e on the one side, and c f and c q on the other; which will shew the roofs and bases of all the houses in the street directly facing you, (supposing yourself placed at A in the centre of the base line). Then fix your accidental points g and h upon the horizontal line, and rule from them to the angles i k and l m (where the streets on each side take a different direction, towards the accidental points g and h), and the lines g i and g k give the roofs and bases of all the buildings on one side, as l h and m h do on the other.

Accidental points seldom intervene where the distance is small, as in noblemen's seats, groves, canals, &c. which may be drawn by the strict rules of perspective; but where the prospect is extensive and varied, including mountains, bridges, castles, rivers, precipices, woods, cities, &c. it will require such an infinite number of accidental points, that it will be better to do them as nature shall dictate, and your ripened judgment approve.

What has been said relates chiefly to mathematical perspective, and forms the basis of architectural design, and governs (though rather occultly) every kind of landscape painting; with regard to the perspective of living objects, and of varied nature, that can only be acquired by attention to models, and to the real figures.

PERSPECTIVE, *aerial*, is the art of giving a due diminution or degradation to the strength of the light, shade, and colours of objects, according to their different distances, the quantity of light which falls on them, and the medium through which they are seen.

As the eye does not judge of the distance of objects entirely by their apparent size, but also by their strength of colours, and distinction of parts; so it is not sufficient to give an object its due apparent bulk according to the rules of stereography, unless at the same time it be expressed with that proper faintness and degradation of colour which the distance requires. Thus if the figure of a man, at a distance, were painted of a proper magnitude for the place, but with too great a distinction of parts, or too strong colours, it would appear to stand forward, and seem proportionally less, so as to represent a dwarf situated nearer the eye, and out of the plane on which the painter intended it should stand.

By the original colour of an object is meant that colour which it exhibits to the eye when duly exposed to it in a full open uniform light, at such a moderate distance as to be clearly and distinctly seen. This colour receives an alteration from many causes, the principal of which are the following.

From the objects being removed to a greater distance from the eye, whereby the rays of light which it reflects are less vivid, and the colour becomes more diluted and tinged, in some measure, by the faint blueish cast, or with the dimness or haziness of the body of air through which the rays pass.

From the greater or less degree of light with which

the object is enlightened; the same original colour having a different appearance in the shades, from what it has in the light, although at an equal distance from the eye, and so in proportion to the strength of the light or shade.

From the colour of the light itself which falls upon it, whether it be from the reflection of coloured light from any adjacent object, or by its passage through a coloured medium, which will exhibit a colour compounded of the original colour of the object, and the other accidental colours which the light brings with it.

From the position of the surface of the object, or of its several parts with respect to the eye; such parts of it appearing more lively and distinct than those which are seen obliquely.

From the closeness or openness of the place where the object is situated; the light being much more variously directed and reflected within a room, than in the open air.

Some original colours naturally reflect light in a greater proportion than others, though equally exposed to the same degrees of it; whereby their degradation at several distances will be different from that of other colours which reflect less light.

From these several causes it happens that the colours of objects are seldom seen pure and unmixed, but generally arrive at the eye broken and softened by each other; and therefore, in painting, where the natural appearances of objects are to be described, all hard or sharp colouring should be carefully avoided.

A painter, therefore, who would succeed in aerial perspective, ought carefully to study the effects which

distance, or the different degrees or colours of light, have on each particular original colour, to know how its appearance or strength is changed into the several circumstances above-mentioned, and represent it accordingly; so, that in a picture of various coloured objects, he may be able to give each original colour its own proper diminution or degradation according to its place.

Now, as all objects in a picture are proportioned to those placed in the front; so in aerial perspective the strength of light, and the brightness of the colours of objects close to the picture, must serve as a standard; with respect to which, all the same colours, at different distances, must have a proportional degradation in like circumstances.

In order, therefore, to give any colour its proper diminution in proportion to its distance, it ought to be known what the appearance of that colour would be, were it close to the picture, regard being had to that degree of light which is chosen as the principal light of the picture. For if any colour should be made too bright for another, or for the general colours employed in the rest of the picture, it will appear too glaring, seem to start out of its place, and throw a flatness and damp upon the rest of the work; or, as the painters express it, the brightness of that colour will kill the rest.

ETCHING COPPER PLATES.

ETCHING is a manner of engraving on copper, in which the lines or strokes, instead of being cut with a tool or graver, are corroded in with aqua fortis.

It is a much later invention than the art of engraving by cutting the lines on the copper, and has many advantages over it for some purposes, though it cannot supersede the use of the graver entirely, as there are many things that cannot be etched so well as they can be graved.

In almost all the engravings on copper that are executed in the stroke manner, etching and graving are combined, the plate being generally begun by etching, and finished with the graver. Landscapes, architecture, and machinery, are the subjects that receive most assistance from the art of etching; for it is not so applicable to portraits and historical designs.

We shall first describe the various instruments and materials used in the art.

Copper-plates may be had ready prepared at the coppersmiths, by those who reside in large towns; but when this cannot be had, procure a piece of pretty thick sheet-copper from a brazier, rather larger than your drawing, and let him planish it well; then take a piece of pumicestone, and with water rub it all one way, till the surface is as smooth and level as it can be

made by that means: a piece of charcoal is next used with water, for polishing it still farther, and removing the deep scratches made by the pumicestone; and it is then finished with a piece of charcoal of a finer grain, with a little oil.

Etching-points or *needles* are pointed instruments of steel, about an inch long, fixed in handles of hard wood, about six inches in length, and of the size of a goose-quill. They should be well tempered, and very accurately fixed in the centre of the handle. They must be brought to an accurately conical point, by rubbing upon an *oil-stone*, with which it is also very necessary to be provided. Several of these points will be necessary.

A *parallel-ruler* is necessary for drawing parallel straight lines with. This is best when faced with brass, as it is not then so liable to be bruised by accident.

Compasses are useful for striking circles and measuring distances.

Aqua-fortis, or what is better, spirits of nitre (nitrous acid), is used for corroding the copper, or *biting*-in, as it is called. This must be kept in a bottle with a glass stopple, for its fumes destroy corks. A stopple made of wax will serve as a substitute, or a cork well covered with wax.

Bordering-wax, for surrounding the margin of the copper-plate when the aqua fortis is pouring on. This may be bought ready prepared, but it may be made as follows.

Take one-third of bees-wax to two-thirds of pitch; melt them in an iron ladle, and pour them, when

melted, into water lukewarm; then mould it with your hand till it is thoroughly incorporated, and all the water squeezed out. Form it into rolls of convenient size.

Turpentine-varnish is used for covering the copper-plate with, in any part where you do not wish the aqua fortis to bite. This may be diluted to a proper consistence with turpentine, and mixed with lamp-black, that it may be seen better when laid upon the plate.

Etching-ground is used for covering the plate all over with, previous to drawing the lines on it with the needles. It is prepared in the following manner.

Take of virgin-wax and asphaltum, each twenty ounces, of black-pitch and Burgundy-pitch, each half an ounce; melt the wax and pitch in a new earthen-ware glazed pipkin, and add to them, by degrees, the aspaltum, finely powdered. Let the whole boil till such time as that, by taking a drop upon a plate, it will break when it is cold, on bending it double two or three times between the fingers. The varnish being then enough boiled, must be taken off from the fire, and letting it cool a little, must be poured into warm water, that it may work the more easily with the hands, so as to form into balls for use.

It must be observed, first, that the fire be not too violent, for fear of burning the ingredients; a slight simmering will be sufficient; secondly, that while the asphaltum is putting in, and even after it is mixed with them, the ingredients should be stirred continually with a spatula; and thirdly, that the water into which this composition is thrown, should be nearly of the

same degree of warmth with it, to prevent a kind of cracking, which happens when the water is too cold.

The varnish ought always to be harder in summer than winter, and it will become so if it be suffered to boil longer, or if a greater proportion of the asphaltum be used. The experiment above mentioned, of the drop suffered to cool, will determine the degree of hardness or softness that may be suitable to the season when it is used.

To lay the ground for etching, proceed in the following manner. Having cleaned the copper-plate with some fine whiting and a linen rag, to free it from all grease, fix a hand-vice to some part of it where no work is intended to be, to serve as a handle for managing it by when warm. Roll up some coarse brown paper, and light one end; then hold the back of the plate over the burning paper, moving it about until every part of it is equally heated, so as to melt the etching-ground, which should be wrapped up in a bit of taffety, to prevent any dirt that may happen to be among it, from mixing with what is melted upon the plate. If the plate be large, it will be best to heat it over a chafing-dish with some clear coals. It must be heated just sufficient to melt the ground, but not so much as to burn it. When a sufficient quantity of the etching-ground has been rubbed upon the plate, must be dabbed, or beat gently, while the plate is hot, with a small dabber made of cotton wrapped up in a piece of taffety, by which operation the ground is distributed more equally over the plate than it could be by any other means.

When the plate is thus uniformly and thinly covered

with the varnish, it must be blackened by smoaking it with a wax-taper. For this purpose twist together three or four pieces of wax-taper, to make a large flame, and while the plate is still warm, hold it with the varnished side downwards, and move the smoky part of the lighted taper over its surface, till it is made almost quite black; taking care not to let the wick touch the varnish, and that the latter get no smear or stain. In laying the etching-ground, great care must be taken that no particles of dust or dirt of any kind settle upon it, as that would be found very troublesome in etching; the room therefore in which it is laid should be as still as possible, and free from dust.

The ground being now laid, and suffered to cool, the next operation is to transfer the design to the plate.

For this purpose a tracing on oiled paper must now be made, from the design to be etched, with pen and ink, having a very small quantity of ox's gall mixed with it, to make the oiled paper take it; also a piece of thin paper, of the same size, must be rubbed over with red chalk, powdered, by means of some cotton. Then laying the red chalked paper, with its chalked side next the ground, on the plate, put the tracing over it, and fasten them both together, and to the plate, by a little bit of the bordering-wax.

When all this is prepared, take a blunt etching needle, and go gently all over the lines in the tracing; by which means the chalked paper will be pressed against the ground, and the lines of the tracing will be transferred to the ground; on taking off the paper, they will be seen distinctly.

The plate is now prepared for drawing through the lines which have been marked upon the ground. For this, the etching-points or needles are employed, leaning hard or lightly, according to the degree of strength required in the lines. Points of different sizes and forms are also used for making lines of different thickness, though commonly this is effected by the biting-in with the aqua fortis.

A margin or border of wax must now be formed all round the plate, to hold the aqua fortis when it is poured on. To do this, the bordering-wax already described must be put into lukewarm water to soften it, and render it easily worked by the hand. When sufficiently pliable, it must be drawn out in long rolls, and put round the edges of the plate, pressing it down firm, and forming it with the fingers into a neat wall or margin. A spout must be formed in one corner, to pour off the aqua fortis by afterwards.

The nitrous acid (spirits of nitre) is now to be diluted with four or five times as much water, or more (according as you wish the plate to be bit quick or slow,) and poured upon the plate. In a few minutes you will see minute bubbles of air filling all the lines that have been drawn on the copper, which are to be removed by a feather; and the plate must be now and then *swept*, as it is called, or kept free from air-bubbles. By the more or less rapid production of these bubbles, you judge of the rapidity with which the acid acts upon the copper. The biting-in of the plate, is the most uncertain part of the process, and nothing but very great experience can enable any one to tell when the plate is bit enough, as you cannot easily see the thickness and depth of the line till the ground is taken off.

When you judge, from the time the acid has been on, and the rapidity of the biting, that those lines which you wish to be the faintest are as deep as you wish, you pour off the aqua fortis by the spout, wash the plate with water, and dry it, by blowing with bellows, or by the fire, taking care not to melt the ground.

Those lines that are not intended to be bit any deeper, must now be stopped up with turpentine varnish mixed with a little lamp-black, and laid on with a camel's-hair pencil; and when this is thoroughly dry, the aqua fortis may be poured on again, to bite the other lines that are required to be deeper.

This process of stopping-out and biting-in, is to be repeated as often as there are to be lines of different degrees of thickness, taking care not to make any mistake in stopping-out wrong lines.

It is also necessary to be particularly careful to stop-out with the varnish, those parts from which the ground may happen to have come off by the action of the acid, otherwise you will have parts bit that were not intended, which is called *foul-biting*.

When the biting-in is quite finished, the next operation is to remove the bordering-wax and the ground, in order that you may see what success you have had; for till then, this cannot be known exactly.

To take off the bordering wax, the plate must be heated by a piece of lighted paper, which softens the wax in contact with the plate, and occasions it to come off quite clean.

Oil of turpentine is now poured upon the ground, and the plate is rubbed with a bit of linen rag, which removes all the ground. Lastly, it is cleaned off with whitening.

The success of the etching may now be known, but it is necessary to get an impression taken upon paper by a copper-plate printer. This impression is called a *proof*.

If any parts are not bit so deep as were intended, the process may be repeated, provided the lines are not too faintly bit to admit of it. This second biting-in the same lines, is called *re-biting*, and is done as follows: Melt a little of the etching ground on a spare piece of copper, and dab it a little to get some on the dabber, then having cleaned out with whiting the lines that are to be rebit, heat the plate gently, and dab it very lightly with the dabber. By this, the parts between the lines will be covered with the ground, but the lines themselves will not be filled up, and consequently will be exposed to the action of the aqua fortis. This is a very delicate process, and must be performed with great care. The rest of the plate must now be varnished over, the bordering wax put on again, and the biting repeated in the same manner as at first.

If any part should be bit too deep, it is more difficult to recover it, or make it fainter; this is generally done by burnishing the part down, or rubbing it with a piece of charcoal. This will make the lines shallower, and cause them not to print so black.

Should any small parts of the lines have missed altogether in the biting, they may be cut with the graver; which is also sometimes employed to cross the lines of the etching, and thus to work up a more finished effect.

Dry-pointing, as it is called, is another method employed for softening the harsh effects usually apparent in an etching. This is done by cutting with the etch-

ing-point upon the copper without any ground or varnish. This does not make a very deep line, and is used for covering the light, where very delicate tints and soft shadows are wanting. By varying these processes of etching, graving, and dry-pointing, as is thought necessary, the plate is worked up to the full effect intended; and it is then sent to the *writing engraver*, to grave whatever letters may be required to be put upon it.

OF MEZZOTINTO SCRAPING.

THIS art, which is of late date, is recommended by the amazing ease with which it is executed, especially by those who understand drawing.

Mezzotinto prints are those which have no patching, or strokes of the graver, but whose lights and shades are blended together, and appear like a drawing in Indian-ink. They are different from aqua tinta; but as both resemble Indian-ink, the difference is not easily described: Mezzotinto is applied to portraits and historical subjects; and aqua tinta is used only for landscape and architecture.

The tools necessary for mezzotinto scraping are the grounding-tool, burnishers and scrapers.

To lay the mezzotinto ground, lay your plate, with a piece of flannel under it, upon your table, hold the grounding-tool in your hand perpendicularly; lean upon it moderately hard, continually rocking your hand in a right line from end to end, till you have wholly covered the plate in one direction: next cross the

strokes from side to side, afterwards from corner to corner, working the tool each time all over the plate, in every direction, almost like the points of a compass; taking all possible care not to let the tool cut (in one direction) twice in a place. This done, the plate will be full, or, in other words, all over rough alike, and would, if it were printed, appear completely black.

Having laid the ground, take the scrapings of black chalk, and with a piece of rag rub it over the plate; or you may smoke it with candles, as before directed, for etching.

Now take your drawing, and having rubbed the back with red-chalk dust, mixed with flake white, proceed to trace it on the plate.

To form the lights and shadows, take a blunt needle, and mark out the outlines only, then with a scraper scrape off the lights in every part of the plate, as clean and smooth as possible in proportion to the strength of the lights in your drawing, taking care not to hurt your outlines.

The use of the burnisher is to soften or rub down the extreme light parts after the scraper is done with; such as the tip of the nose, forehead, linen, &c. which might otherwise, when proved, appear rather misty than clear.

Another method used by mezzotinto scrapers, is, to etch the outlines of the original, as also the folds in drapery, making the breadth of the shadows by dots, which having bit to a proper depth with aqua fortis, they take off the ground used in etching, and having laid the mezzotinto ground, proceed to scrape as above.

When your plate is ready for taking a proof or im-

pression, send it to the copper-plate printer, and get it proved. When the proof is dry, touch it with white chalk where it should be lighter, and with black chalk where it should be darker; and when the print is re-touched, proceed as before, for the lights; and for the shades use a small grounding-tool, as much as you judge necessary to bring it to a proper colour; and when you have done as much as you think expedient, prove it again; and so proceed to prove and touch till it is entirely to your mind.

OF ENGRAVING.

ENGRAVING is the making correspondent to some delineated figure or design, such concave lines on a smooth surface of copper, either by cutting or corrosion, as render it capable, when charged properly with any coloured fluid, of imparting by compression an exact representation of the design to paper or parchment.

The principal instrument used in engraving with the tool are, gravers, scrapers, a burnisher, an oil-stone, and a cushion for bearing the plates.

Gravers are made in several forms with respect to the points, some being square, others lozenge; the square graver for cutting broad and deep, and the lozenge for more delicate and fine strokes and hatches. La Bosse recommends as the most generally useful, such as are of a form betwixt the square and lozenge; and he advises, that they should be of a good length,

small towards the point, but stronger upwards, that they may have strength enough to bear any stress there may be occasion to lay upon them; for if they be too small and mounted high, they will bend, which frequently causes their breaking, especially if they be not employed for very small subjects.

The burnisher is used to assist in the engraving on some occasions, as well as to polish the plates. It is seven inches in length, and made of fine steel, well polished. The burnisher is formed at one end, and a scraper on the other, each about an inch and a half long from the point; betwixt them, about four inches of the instrument is made round, and serves as a handle, and is thicker in the middle than at the necks, where the burnisher and scraper begin, which necks are only one quarter of an inch in diameter. The principal application of it in engraving, besides its use in polishing the plates, is to take out any scratches or accidental defacings that may happen to the plates during the engraving; or to lessen the effects of any parts that may be too strongly marked in the work, and require to be taken down.

A cushion, as it is called, is likewise generally used for supporting the plate in such a manner, that it may be turned every way with ease. It is a bag of leather filled with sand, which should be of the size that will best suit the plates it is intended to bear. They are round. and about nine inches over, and three inches in thickness.

The cushion, made as above directed, being laid on the table, the plate must be put upon it; and the graver being held in the hand in a proper manner, the point

must be applied to the plate, and moved in the proper direction for producing the figures of the lines intended; observing, in forming strait lines, to hold the plate steady on the cushion, and, where they are to be finer, to press more lightly, using greater force where they are to be broader and deeper. In making circular and other curve lines, hold your hand and grave steadily; and as you work, turn your plate upon the cushion against your graver; otherwise it will be impossible for you to make any circular or curved line, with that neatness and command of hand you by this means may. After part of the work is engraved, it is necessary to scrape it with the scraper or graver, passed in the most level direction over the plate to take off the roughness formed by the cutting of the graver; but great care must be taken not to incline the edge of the scraper or tool used, in such a manner that it may take the least hold of the copper, as it would otherwise produce false strokes or scratches in the engraving; and that the engraved work may be rendered more visible, it may be afterwards rubbed over with a roll of felt dipped in oil. In using the graver, it is necessary to carry it as level as possible with the surface of the plate; for otherwise, if the fingers slip between them, the line that will be produced, whether curve or straight, will become deeper and deeper in the progress of its formation, which entirely prevents strokes being made at one cut, that will be fine at their extremities, and larger in the middle, and occasions the necessity of re-touching to bring them to that state; for this reason, it is very necessary for those who would learn to engrave in perfection, to endeavour, by frequent trials, to acquire the habit of

making such strokes both strait and curving, by lightening or sinking the engraver with the hand, according to the occasion. If, after finishing the design, any scratches appear, or any part of the engraving be falsely executed, such scratches, or faulty parts, must be taken out by the burnisher, and further polished, if necessary, by the above-mentioned roll.

The plate being thus engraved, it is proper to round off the edges, by using first a rough file, and afterwards a smoother, and to blunt the corners a little by the same means; after which the burnisher should be passed over the edges to give it a further polish.

The dry point, or needle, which has been of late much used in engraving, is a tool like an etching point, which, being drawn hard on the copper, cuts a stroke, and raises a burr, the burr is scraped off, and there remains a stroke more soft and delicate than can be produced in any other way.

In the conduct of the graver and dry point consists all the art, for which there are no rules to be given; all depending on the habitude, disposition, and genius of the artist: however, besides the explanations already given, some general observations and directions may not be improper; as the principles of engraving are the same with those of painting, a person cannot expect to attain any considerable degree of perfection in this art who is not a good master of design: and therefore he ought to be well acquainted with both perspective and architecture; for the former, by the proper gradations of strong and faint colours, will enable him to throw backwards the figures and other objects of the picture or design which he proposes to imitate; and the latter

will teach him to preserve the due proportion of its several orders, which the painter often entrusts to the discretion of the engraver. In order to preserve equality and union in his works, the engraver should always sketch out the principal objects of his piece before he undertakes to finish them. In working, the strokes of the graver should never be crossed too much in a lozenge manner, particularly in the representation of flesh, because sharp angles produce the unpleasing effect of latticework, and take from the eye the repose which is agreeable to it in all kinds of picturesque design; but we should except the case of clouds, tempests, waves of the sea, the skins of hairy animals, or the leaves of trees, where this method of crossing may be admitted; but in avoiding the lozenge, it is not proper to get entirely into the square, which would give too much of the hardness of stone. In conducting the strokes, the action of the figures, and of all their parts, should be considered, and it should be observed how they advance towards, or recede from the eye; and the graver should be guided according to the risings or cavities of the muscles or folds, making the strokes wider or fainter in the light, and closer and firmer in the shades. Thus the figures will not appear jagged, and the hand should be lightened in such a manner, that the outlines may be formed and terminated without being cut too hard; however, though the strokes break off where the muscle begins, yet they ought always to have a certain connection with each other, so that the first stroke may often serve by its return to make the second, which will show the freedom of the engraver.

In engraving the flesh, the effect may be produced in the lighter parts and middle tints, by long pecks of the graver, rather than by light lines, or by round dots; or by dots a little lengthened by the graver; or, best of all, by a judicious mixture of these together.

In engraving the hair and the beard, the engraver should begin his beard by laying the principal grounds, and sketching the chief shades in a careless manner, or with a few strokes; and he may finish it at leisure with finer and thinner strokes to the extremities. When architecture or sculpture is to be represented, except it be old and ruinous buildings, the work ought not to be made very black; because, as edifices are commonly constructed either of stone or white marble, the colour, being reflected on all sides, does not produce dark or brown shades, as in other substances. White points must not be put in the pupils of the eyes of the figures, as in engravings after painting; nor must the hair or beard be represented as in nature, which makes the locks appear flowing in the air; because in sculpture there can be no such appearance.

In engraving cloths of different kinds, linen should be done with finer and closer lines than other sorts, and be executed with single strokes. Woollen cloth should be engraved wide, in proportion to the coarseness or fineness of the stuff, and with only two strokes; and when the strokes are crossed, the second should be smaller than the first, and the third than the second. Shining stuffs, which are generally of silk or satin, and which produce flat and broken folds, should be engraved more hard and more straight than others with one or two strokes, as their colours are bright or

brown; and between the first strokes other smaller must be joined, which is called interlining. Velvet and plush are expressed in the same manner, and should always be interlined. Metals, as armours, &c. are also represented by interlining, or by clear single strokes. In architecture, the strokes which form the rounding object should tend to the point of sight, and, when whole columns occur, it is proper to produce the effect as much as possible by perpendicular strokes. If a cross stroke is put, it should be at right angles, and wider and thinner than the first stroke. In engraving mountains, the strokes ought to be frequently discontinued and broken, for sharp and craggy objects; and they should be straight, in the lozenge manner, and accompanied with long points or dots; and rocks should be represented by cross strokes more square and even. Objects that are distant towards the horizon should be kept very tender, and slightly charged with black. Waters that are calm and still are best represented by strokes that are straight, and parallel to the horizon, interlined with those that are finer; omitting such places as, in consequence of gleams of light, exhibit the shining appearance of water, and the form of objects reflected from the water, at a small distance upon it, or on the banks of the water, are expressed by the same strokes, retouched more strongly or faintly as occasion may require, and even by some that are perpendicular. For agitated waters, as the waves of the sea, the first strokes should follow the figure of the waves, and may be interlined, and the cross strokes ought to be very lozenge. In cascades, the strokes should follow the fall, and be interlined. In engrav-

ing clouds, the graver should sport when they appear thick and agitated, in turning every way according to their form and their agitation. If the clouds are dark, so that two strokes are necessary, they should be crossed more lozenge than the figures, and the second strokes should be rather wider than the first. The flat clouds that are lost insensibly in the clear sky, should be made by strokes parallel to the horizon, and a little waving; if second strokes are required, they should be more or less lozenge; and when they are brought to the extremity, the hand should be so lightened, that they may form no outline. The flat and clear sky is represented by parallel and straight strokes, without the least turning. In landscapes, the trees, rocks earth and herbage, should be etched as much as possible; nothing should be left for the graver but perfecting, softening, and strengthening. The dry point produces an effect more delicate than the graver can, and may be used to great advantage in linen, skies, distances, ice, and often in water, especially in small engravings. In most things it is proper to etch the shadows, only leaving the lighter tints for the dry point, graver, &c.

Chalk Drawings.

To imitate chalk-drawings, a mixture of varied and irregular dots are used, made more or less soft, so as to resemble the grain produced by the chalks on paper. Every stroke of the chalks on paper may be considered as an infinite number of adjoining points, which

are the small eminences of the grain of the paper touched by the chalk in passing over it. When the copper-plate has been polished and varnished, or properly prepared, as in the common method of engraving, the drawing to be imitated may be counterproved on the varnish of the plate. If this cannot be conveniently done, black-lead pencil or red chalk, may be applied to varnished or oiled paper; and by means of this chalk or pencil, all the trees of the original will be transmitted to the varnish. The outlines of the varnish must be formed in the etching by points, whose magnitude and distance must be determined by the quality of the strokes in the original drawing. The artist may be provided with pointed instruments, or needles of various sizes, with single or double points. In forming the light and shade, he should distinguish between those hatchets which serve to express the perspective of the object, and those which form the ground of it. The principal hatches should be more strongly marked; the middle tints, if etched, should be marked lightly, or they may be left till the varnish is taken off, and be perfected with a greater degree of softness, by needles, or the point of the graver, as the original may require. There is nothing peculiar in the method of applying the *aqua fortis* in this kind of engraving; but it may be observed, that it should not be left so long as to corrode the lighter parts too much; if the light parts are sufficiently corroded, they may be stopped out with turpentine varnish, and lamp-black mixed together; and the *aqua fortis* may be applied again to the stronger parts; for it will be no detriment to them, if the points, which compose the shade, burst

into one another, provided the extreme be avoided. When the work of the *aqua fortis* is finished, and the varnish taken off the copper, it will be necessary in the softer parts, such as the flesh, &c. to interstipple with proper points; as an effect will be thus produced more delicate than it is possible to attain with the *aqua fortis* only, and the strongest shades will require additional strength to be given them with small strokes of the graver. Drawing made with chalks of different colours may be imitated in this manner, if a plate be provided for every colour.

ENGRAVING IN AQUATINTA.

A METHOD of etching on copper, lately invented, and by which a soft and beautiful effect is produced, resembling a fine drawing in water-colours or Indian ink. Previous to the operation upon the plate, the following powder must be prepared:

Take equal parts of asphaltum and fine transparent rosin, and powder them separately in a mortar. Through a muslin sieve, sift upon a sheet of paper a thin stratum of the asphaltum, above which sift a similar layer of the rosin, and upon this another layer of asphaltum, continuing these alternate rays till both of the powders are exhausted. Then pass the mixture both together through the same sieve, so as to

mix them sufficiently for use. Some, instead of the above mixture, use powdered gum sandarach only.

The process is as follows: a copper plate being polished in the usual way, lay the etching ground upon it, and etch the outlines of your design in the same manner as directed under the article Etching. The ground is then to be softened with a little grease, and wiped off with a piece of rag; leaving, however, as much grease upon the plate as just to dim the copper. Next sift the powder upon the surface of the plate; after which, strike the other side of it pretty smartly against the edge of a table to discharge it of loose powder. This done, with a hand-vice hold the back of the plate over a chaffing-dish of burning charcoal, till it becomes so hot as to give pain upon being touched with the back of the hand; and the powder which adhered to the grease will now be fixed to the plate. The plate being then suffered to cool, take turpentine varnish, mixed with ivory black, and with a hair pencil dipped in it, cover all the lights or places where there is no work or shade. A rim or border of bees-wax is now to be raised round the plate; and having reduced a quantity of *aqua fortis* to a proper strength with water, pour it on, and let it stand five minutes for the first or lightest shade; after which, pour it off; and, having washed the plate with water, set it edgewise to dry. Then with varnish stop out all the light shades; pour it on the *aqua fortis* for the second tint, and let it stand five minutes more; proceeding in the same manner for every tint till you produce the darkest shades. If a bold open ground is wanted in any part, this requires an after operation.

The ground must be laid as in the other case, by sifting on the powder; only this powder must be much coarser, and the plate more heated, in order that the particles of the powder may spread and form small circles; even good clear rosin will do by itself. In etching landscapes, the sky and distant objects are also performed by a second operation, and the powder is sifted upon the plate with a finer sieve. If the trees or any part of the fore-ground require to be finished higher, the plate must be entirely cleansed from grease with bread, and a ground laid in the common way of etching; when you may finish as highly and neatly as you please with the needle or point, by stippling with dots, and biting in those parts, or by a rolling wheel, which is more expeditious.

If different colours are to be expressed in *aqua tinta* there will be required so many different plates, each having only that part etched upon it which is designed to be charged with its proper colour. It may happen, however, in particular subjects, that some of the colours are so distant from each other as to allow the printer room to rub them in without blending; in which case, two or three different colours may be printed from the same plate at once. Where different plates are necessary, a separate one having a pin in each corner, must be provided as a sole or bottom to the *aqua tinta* plates; and these again must be exactly fitted, having each a small hole in their corners for passing over the pins of the sole; the said pins serving the double purpose of retaining the plates successively in their due position, and of directing the printer in placing their paper exactly on each plate so

as not to shift; by which means each tint or colour will be exactly received on its proper place. This is the method practised in France. A landscape, or any similar subject, may be printed off at once in its different proper colours, by laying these upon the plate. In this case, the colours must be pretty thick in their consistence; and the plate must be carefully wiped in the usual way after the laying on of each tint, as well as receive a general wipe when charged with all the tints.

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